



KERN COUNTY WATER AGENCY

Kern County, California

CONTRACT DOCUMENTS

Specifications No. KCWA -2006-06

**MONITORING WELLS
PROJECT**

Proposal, Contract, and Specifications

October 2007



DEE JASPAR & ASSOCIATES, INC.
CONSULTING CIVIL ENGINEERS

3701 PEGASUS DRIVE, SUITE 121
BAKERSFIELD, CA 93308
PHONE (661) 393-4796
FAX (661) 393-4799

PRELIMINARY

KERN COUNTY WATER AGENCY

Kern County, California

CONTRACT DOCUMENTS

Specifications No. KCWA-2006-06

Monitoring Wells

Project

Proposal, Contract, and Specifications

Bids will be received until 10:00 am on _____, 2007 at 3200 Rio Mirada
Dr., Bakersfield, California 93308, and then publicly opened.

**Oswell Regulating Facility
Site Piping Improvements
Contract No. 2007-04
Table of Contents**

Document Name	Document Number
1) Notice Inviting Sealed Proposals (Bids)	001000
2) Bid Form	004100
3) Contract	005200
4) Bid Bond	006110
5) Performance Bond	006111
6) Payment Bond	006112
7) Contractor's Certificate Regarding Worker's Compensation Insurance	006220
8) Worker's Compensation and Employers' Liability Certificate of Insurance	006221
9) Workers' Compensation and Employers' Liability Insurance Endorsement	006222
10) Liability Insurance Certificate of Insurance	006223
11) Liability Insurance Endorsement	006224
12) Builders' Risk "All Risk" Certificate of Insurance	006225
13) Builders' Risk "All Risk" Insurance Endorsement	006226
14) General Conditions	007000
15) Special Provisions	000810
16) Coordination of Work and Permits	001110
17) Measurement and Payment	001200
18) Submittals	001300
19) Submittals-Attachment D	001300
20) Construction Schedule (Bar Charts)	001312
21) Inspection of the Work	001400
22) Inspection of the Work-Attachment C	001400
23) Construction Facilities and Temporary Controls	001500
24) Mobilization	001505
25) Temporary Utilities and Services	001510
26) Access, Parking, and Traffic	001550
27) Traffic Regulation	001570
28) Delivery, Storage, and Handling	001610
29) Cleaning During Construction and Final Cleaning	001740
30) Technical Provisions	Section A
31) Geotechnical Report	Section B
32) Contract Drawings	Section C

NOTICE INVITING SEALED PROPOSALS (BIDS)

**KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. 2006-06**

NOTICE IS HEREBY GIVEN that the Board of Directors of the Kern County Water Agency (AGENCY) invites and will receive sealed proposals (bids) up to the hour of _____, 2007, for the furnishing to said AGENCY of all transportation, labor, materials, tools, equipment, services, permits, utilities, and other items necessary to construct said work. At said time, said proposals will be publicly opened and read aloud at the office of the AGENCY.

**Stuart T. Pyle Water Resources Center
3200 Rio Mirada Drive
Bakersfield, CA 93308**

Bids shall conform to and be responsive to the Contract Documents for the work. Copies of the Contract Documents are on file and may be acquired at the office of the AGENCY

Description of Work:

The work includes all labor, materials, equipment and the performance of all operations necessary to drill, furnish, construct, and develop three groundwater monitoring wells in accordance with the Drawings and Specifications.

Each bid shall be submitted on a form furnished as part of the Contract Documents and must be accompanied by cash, a cashier's check, a certified check, or a BIDDER'S bond executed by an admitted surety insurer, or substitute pursuant to Section 995.710 of the Code of Civil Procedure, in an amount not less than ten percent (10%) of the amount of the bid, made payable to the order of or for the benefit of the AGENCY. The security of unsuccessful BIDDER'S will be returned by the AGENCY no later than sixty (60) days following the date of award. Each bid shall be sealed and delivered to the AGENCY at the location designated in this notice for the opening of proposals at or before the time provided in this notice. The check or bond or substitute shall be given as security that the BIDDER will enter into a contract with the AGENCY and furnish the required payment and performance bonds, or substitutes in lieu thereof, and certificates of insurance and endorsements if awarded the work, and will be declared forfeited if the BIDDER refuses to timely enter into said contract or furnish the required bonds or substitutes, or certificates of insurance and endorsements if his bid is accepted.

The Board of Directors has obtained from the Director of the California Department of Industrial Relations a determination of the general prevailing rate of per diem wages and the general prevailing rate for legal holiday and overtime work in the locality in which said work is to be performed for each craft, classification, or type of worker needed. Not less than the determined rates shall be paid to all workers employed in the performance of the contract. Such rates of wages can be found on the Department of Industrial Relations website located at <http://www.dir.ca.gov/dlsr>, and the office of the Agency.

Pursuant to Public Contract Code Section 22300, equivalent securities may be substituted for monies withheld to ensure performance of the contract. The AGENCY reserves the right to solely determine the adequacy of the securities being proposed by the BIDDER and the value of those securities. The AGENCY shall also be entitled to charge an administrative fee, as determined by AGENCY in its sole discretion, for substituting equivalent securities for retention amounts. The AGENCY'S decisions with respect to the administration of the provisions of Section 22300 shall be final and shall include, but not be limited to, determinations of what securities are equivalent, the value of the securities, the negotiability of the securities, the costs of administration and the determination of whether or not the administration should be accomplished

by an independent agency or by the AGENCY. The AGENCY shall be entitled, at any time, to request the deposit of additional securities of a value designated by AGENCY, in AGENCY'S sole discretion, to satisfy this requirement. If the AGENCY does not receive satisfactory securities within twelve (12) consecutive days of the date of the written request, AGENCY shall be entitled to withhold amounts due BIDDER until securities of satisfactory value to AGENCY have been received.

The CONTRACTOR'S license classification(s) required for this project is as follows:

California Well Driller's License - Class C57

These classifications are provided for information purposes only. The AGENCY does not warrant that all classifications required for the project are listed.

It is the AGENCY'S intent that "Plans", as used in Public Contract Code Section 3300, is defined as the construction contract documents, which include both the drawings and the Specifications.

The Board of Directors of the AGENCY reserves the right to select the schedule(s) under which the bids are to be compared and contract(s) awarded, to reject any and all bids, and to waive any and all irregularities in any bid.

Each BIDDER is required to sign the attached Non-Collusion Affidavit and submit it with his bid.

***Each Bidder must attend a mandatory prebidders job walk. The Bidder may choose one of two job walks to attend. The first job walk is scheduled for _____ on _____, 2007 and the second job walk is scheduled for _____ on _____, 2007. The designated meeting area is Well Site B. If necessary, contact Jeff Pray with Dee Jaspar & Associates, Inc. at (661)393-4796 for directions.**

(END OF SECTION)

SECTION 004100**BID FORM**

Description of Project:

**KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. 2006-06**

Name of Bidder: _____

Business Address: _____

Phone No. _____

TO THE GOVERNING BODY OF THE

KERN COUNTY WATER AGENCY

Pursuant to and in compliance with your Notice Inviting Sealed Proposals (Bids) and the other documents relating thereto, the undersigned bidder, being fully familiar with the terms of the Contract Documents, local conditions affecting the performance of the contract, the character, quality, quantities, and scope of the work, and the cost of the work at the place where the work is to be done, hereby proposes and agrees to perform within the time stipulated in the contract, including all of its component parts and everything required to be performed, and to furnish any and all of the labor, material, tools, equipment, transportation, services, permits, utilities, and all other items necessary to perform the contract and complete in a workmanlike manner, all of the work required in connection with the construction of said work all in strict conformity with the plans and specifications and other contract documents, including Addenda set forth for the prices hereinafter set forth as follows:

ADDENDA NO.DATE ISSUED

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

The undersigned as bidder, declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any person, firm, or corporation; and he proposes and agrees, if the proposal is accepted, that he will execute a contract with the AGENCY in the form set forth in the Contract Documents and that he will accept in full payment thereof the following prices, to wit:

**PROPOSAL TO
KERN COUNTY WATER AGENCY**

**FOR THE CONSTRUCTION OF
THE MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06**

SCHEDULE OF WORK ITEMS

Item No.	Estimated Quantity	Unit of Measure	Item	Unit Price (in figures)	Expansion Price (in figures)
1.	1	LS	Mobilization, Demobilization, and Clean-Up		\$
2.	1480	LF	Drill 15" Diameter Bore Hole		\$
3.	1	LS	Geophysical Logs		\$
4.	1390	LF	Furnish and Install 6" Diameter, Sch. 80 PVC Blank Casing		\$
5.	60	LF	Furnish and Install 6" Diameter, 304 Stainless Steel Continuous Wound Wire Casing		\$
6.	15	LF	Furnish and Install 6" Diameter, 304 Stainless Steel Sump		\$
7.	69	LF	Furnish and Install Gravel Envelope		\$
8.	60	LF	Furnish and Install Bentonite Seal		\$
9.	1351	LF	Furnish and Install Cement Grout for Annular Seal		\$
10.	24	HRS	Conduct Preliminary Well Development by Surging/Swabbing, and Air-lifting		\$
11.	24	HRS	Conduct Well Development by Pumping and Surging		\$
12.	1	LS	Furnish and Install Steel Covers and Concrete Pump Bases		\$
13.	12	EA	Furnish and Install 4" Diameter Steel Bollards		\$
Total Lump Sum Bid Price:					\$
Total Lump Sum Bid Price (in words):					

ACCOMPANYING THIS PROPOSAL IS _____ (insert the words "bidder's bond," "cashier's check," "certified check," or appropriate description of substitute security, as the case may be) in an amount equal to at least 10% of the total amount of the bid, payable to the

KERN COUNTY WATER AGENCY

The undersigned deposits the above-named security as a proposal guarantee and agrees that it shall be forfeited to the AGENCY in case this proposal is accepted by the AGENCY and the undersigned fails to execute a contract with the AGENCY as specified in the Contract Documents or fails to furnish the required payment and performance bonds, or substitute, and insurance certificates and endorsements. Should the AGENCY be required to engage the services of an attorney in connection with the enforcement of this bid, bidder promises to pay AGENCY's reasonable attorneys' fees, incurred with or without suit.

The names of all persons interested in the foregoing proposals as principals are as follows: (NOTICE - If bidder or other interested person is a corporation, state legal name of corporation, and the president, secretary, treasurer, and manager thereof; if a general partnership, state true name of firm, and the names of all individual partners composing firm; if a limited partnership, the names of all general partners and limited partners; if bidder or other interested person is an individual, state first and last names in full; if the bidder is a joint venture, state the complete name of each venturer).

Bidder hereby confirms that it has all licenses and permits required by federal, state, and local statutes, regulations, and ordinances. The following are the CONTRACTOR'S applicable license numbers (add pages if needed):

CONTRACTOR's License No.

Expiration Date

<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

Pursuant to the requirements of California Business and Professions Code Section 7028.15(e), a bid submitted to the AGENCY by a CONTRACTOR who is not licensed pursuant to Chapter 9 of Division 3 of the Business and Professions Code shall be considered nonresponsive and shall be rejected as provided for by law.

Signature of Bidder: _____

Printed Name: _____

Title: _____

Company: _____

Dated: _____, 2007

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation and the corporate seal; if bidder is a partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; if the bidder is an individual, his signature shall be placed above; if the bidder is a joint venture, the name of the joint venture shall be set forth above with the signature of an authorized representative of each venturer.

(SPACE LEFT BLANK INTENTIONALLY)

NON-COLLUSION AFFIDAVIT

_____, being first duly sworn, deposes and says that he/she is _____ of _____ the party making the foregoing bid, that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository or to any member or agent thereof to effectuate a collusive or sham bid.

Bidder

State of California)
)
County of _____) ss.

On this _____ day of _____, 2007 before me personally came _____ to me known, or proven to be on the basis of satisfactory evidence, who being duly sworn, did depose and say: that _____ is an authorized representative of the _____ and acknowledged to me that _____ executed the within instrument on behalf of said bidder.

In witness whereof, I have signed and affixed my official seal on the date first above written.

Notary Public

(END OF SECTION)

SECTION 005200

CONTRACT

Description of Contract:

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. 2006-06

THIS AGREEMENT, made and entered into by and between the

KERN COUNTY WATER AGENCY

Hereinafter referred to as "AGENCY" and

_____;
a corporation under the laws of the state of _____;

a partnership composed of _____;

a joint venture composed of _____;

an individual doing business as _____;

hereinafter referred to as "CONTRACTOR."

AGENCY and CONTRACTOR agree as follows:

- (1) **SCOPE OF WORK:** CONTRACTOR will furnish all materials and will perform all of the work for the construction of

MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06

in accordance with the Plans and Specifications and other contract documents therefor.

- (2) **TIME FOR COMPLETION:** The work shall be completed within the times set forth in Section 00810. Time is of the essence, and forfeiture due to delay will be assessed as provided for in the General Provisions.
- (3) **CONTRACT SUM:** AGENCY will pay CONTRACTOR in accordance with the prices shown in the Bid Form.
- (4) **PAYMENTS:** Monthly progress payments and the final payment will be made in accordance with the General Provisions as modified by the Special Provisions. The filing of the notice of completion by AGENCY shall be preceded by acceptance of the work made only by an action of the Governing Body of AGENCY in session.
- (5) **COMPLIANCE WITH PUBLIC CONTRACTS LAW:** AGENCY is a public AGENCY in the State of California and is subject to the provisions of law relating to public contracts. It is agreed that all provisions of law applicable to public contracts are a part of this contract to the same extent as though set forth herein and will be complied with by CONTRACTOR.

- (6) **CONTRACT DOCUMENTS:** The complete contract includes all the Contract Documents set forth herein, to wit: Notice Inviting Sealed Proposals (Bids); Bid Form; Contract; Bid Bond; Performance Bond; Payment Bond; CONTRACTOR'S Certificate Regarding Workers' Compensation Insurance; Certificate of Insurance (Workers' Compensation and Employers' Liability); Insurance Endorsement (Workers' Compensation and Employers' Liability); Certificate of Insurance (Liability); Insurance Endorsement (Liability); Certificate of Insurance (Builders' Risk "All Risk"); Insurance Endorsement (Builders' Risk "All Risk"); General Conditions; Special Provisions; Coordination of Work and Permits; Measurement and Payment; Submittals; Submittals - Attachment "D"; Construction Schedule; Inspection of the Work; Inspection of the Work - Attachment "C"; Construction Facilities and Temporary Controls; Mobilization; Temporary Utilities Services; Access, Parking and Traffic; Traffic Regulation; Delivery, Storage and Handling; Cleaning During Construction and Final Cleaning; Technical Specifications; Drawings; Plans; and also addenda thereto and supplemental agreements; including Change Orders.

This Contract is executed by the AGENCY pursuant to an action of its Governing Body in session on _____, 2007, authorizing the same, and CONTRACTOR has caused this Contract to be duly executed.

Dated: _____, 2007

By: _____
(Authorized Representative of AGENCY)

Title: _____

Dated: _____, 2007

(CONTRACTOR)

By: _____
(Authorized Representative of CONTRACTOR)

Title: _____

(Seal if Corporation)

(Attach Acknowledgment for Authorized Representative of CONTRACTOR)

APPROVED:

(Attorney for AGENCY)

CERTIFICATE OF CONTRACTOR

I, _____, certify that I am
a/the _____ [designate sole proprietor, partner in partnership, or specify corporate office, e.g.,
secretary] in the entity named as CONTRACTOR in the foregoing contract.

I hereby expressly certify that the name of the entity to which I am associated is _____
_____; that this entity is in good standing and has complied with all applicable laws and
regulations, and that I have been expressly authorized by the proper parties in this entity to execute this
contract on behalf of the above-named entity

ATTEST:

Name: _____
Please Type)

Title: _____

On this _____ day of _____, 2007, before me personally came
_____ to me known, or proven to me on the basis of satisfactory evidence, who
being duly sworn, did depose and say: that (he/she) is an authorized representative of the CONTRACTOR
and acknowledged to me that (he/she) executed the within instrument on behalf of said CONTRACTOR,
_____.

In witness whereof, I have signed and affixed my official seal on the date in this certificate first above
written.

NOTARY PUBLIC

(END OF SECTION)

SECTION 006110

BID BOND

Description of Contract:

**KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06**

We, _____ as
Principal, and _____ as Surety, jointly and
severally, bind ourselves, our heirs, representatives, successors and assigns, as set forth herein, to the
KERN COUNTY WATER AGENCY
(herein called AGENCY) for payment of the penal sum of _____

Dollars (\$ _____), lawful money of
the United States. Principal has submitted the accompanying bid for the construction of

**MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06**

If the Principal is awarded the contract and enters into a written contract, in the form prescribed by the AGENCY, at the price designated by his bid, and files two bonds with the AGENCY, or substitute security in lieu thereof, one to guarantee payment for labor and materials and the other to guarantee faithful performance, in the time and manner specified by the AGENCY, and carries all insurance in type and amount which conforms to the Contract Documents and furnishes required certificates and endorsements thereof, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Forfeiture of this bond, or any deposit made in lieu thereof, shall not preclude the AGENCY from seeking all other remedies provided by law to cover losses sustained as a result of the Principal's failure to do any of the foregoing.

Principal and Surety agree that if the AGENCY is required to engage the services of an attorney in connection with the enforcement of this bond, each shall pay AGENCY'S reasonable attorney's fees incurred with or without suit.

Executed on _____, 2007

PRINCIPAL

(Seal if Corporation)

By: _____

Title: _____

(Attach Acknowledgment of Authorized Representative of Principal)

Any claims under this bond may be addressed to:

_____ (name and address of Surety)

_____ (name and address of Surety's agent for service of
process in California, if different from above)

_____ (telephone number of Surety's agent in California)

(Attach Acknowledgment)

_____ SURETY

By: _____
(Attorney-in-Fact)

NOTICE:

No substitution or revision to this bond form will be accepted. Sureties must be authorized to do business in and have an agent for service of process in California. Certified copy of Power of Attorney must be attached.

(END OF SECTION)

SECTION 006111

PERFORMANCE BOND

Description of Contract:

**KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06**

We, _____ as Principal, and
_____ as Surety, jointly

and severally, bind ourselves, our heirs, representatives, successors and assigns, as set forth herein, to the

KERN COUNTY WATER AGENCY

(herein called AGENCY) for payment of the penal sum of _____
_____ Dollars (\$ _____),

lawful money of the United States. AGENCY has awarded Principal a contract for the construction of

**MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06**

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Principal shall in all things abide by and well and truly keep and perform the covenants, and agreements in the said contract, and any alteration thereof made as therein provided, on his part to be kept and performed at the time and in the manner therein specified, and shall faithfully fulfill the one-year guarantee of all materials and workmanship, and shall indemnify and save harmless the AGENCY, the ENGINEER/ARCHITECT, the AGENCY'S REPRESENTATIVE, and their consultants, and each of their directors, officers, employees and agents, as therein stipulated, this obligation shall become null and void, otherwise, it shall be and remain in full force and effect.

Surety agrees that no change, extension of time, alteration, or addition to the terms of the contract, or the work to be performed thereunder, or the Plans and Specifications shall in any way affect its obligation on this bond, and it does hereby waive notice thereof.

Principal and Surety agree that if the AGENCY is required to engage the services of an attorney in connection with the enforcement of this bond, each shall pay AGENCY'S reasonable attorney's fee incurred, with or without suit, in addition to the above sum.

Executed in four original
counterparts on

_____, 2007

PRINCIPAL

(Seal if Corporation)

By: _____

Title: _____

(Attach Acknowledgment of Authorized Representative of Principal)

Any claims under this bond may be addressed to:

(name and address of Surety)

(name and address of Surety's
agent for service of process in
California, if different from
above)

(telephone number of Surety's agent in California)

(Attach Acknowledgment)

SURETY

By: _____
(Attorney-in-Fact)

APPROVED:

(Attorney for AGENCY)

NOTICE:

No substitution or revision to this bond form will be accepted. Sureties must be authorized to do business in and have an agent for service of process in California. Certified copy of Power of Attorney must be attached.

(END OF SECTION)

SECTION 006112

PAYMENT BOND

Description of Contract:

**KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06**

We, _____ as Principal,
and _____ as
Surety, jointly and severally, bind ourselves, our heirs, representatives, successors and assigns, as set forth
herein, to the

KERN COUNTY WATER AGENCY

(herein called AGENCY) for payment of the penal sum of _____
_____ Dollars (\$ _____), lawful money of the United
States. AGENCY has awarded Principal a contract for the construction of

**MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06**

If Principal or any of his subcontractors fails to pay any of the persons named in Section 3181 of the California Civil Code, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract or during the one-year guarantee period, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the contractor and his subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, then Surety will pay the same in an amount not exceeding the sum specified above, and also will pay, in case suit is brought upon this bond, such reasonable attorney's fees as shall be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Section 3181 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Surety agrees that no change, extension of time, alteration, or addition to the terms of the contract, or the work to be performed thereunder, or the Plans and Specifications shall in any way affect its obligation on this bond, and it does hereby waive notice thereof.

Principal and Surety agree that should AGENCY become a party to any action on this bond that, each will also pay AGENCY'S reasonable attorney's fees incurred therein in addition to the sum above set forth.

Executed in four original
counterparts on

_____, 2007

PRINCIPAL

(Seal if Corporation)

By: _____

Title: _____

(Attach Acknowledgment of Authorized Representative of Principal)

Any claims under this bond may be addressed to:

(name and address of Surety)

(name and address of Surety's agent for service of process in California, if different from above)

(telephone number of Surety's agent in California)

(Attach Acknowledgment)

SURETY

By: _____
(Attorney-in-Fact)

APPROVED:

(Attorney for AGENCY)

NOTICE:

No substitution or revision to this bond form will be accepted. Sureties must be authorized to do business in and have an agent for service of process in California. Certified copy of Power of Attorney must be attached.

(END OF SECTION)

SECTION 006220

**CONTRACTOR'S CERTIFICATE REGARDING
WORKERS' COMPENSATION INSURANCE**

Description of Contract:

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06

Labor Code Section 3700 provides (in part):

Every employer except the State shall secure the payment of compensation in one or more of the following ways:

- (a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.
- (b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

Dated: _____, 2007

(CONTRACTOR)

By: _____

(Official Title)

(SEAL)

(Labor Code Section 1861 provides that the above certificate must be signed and filed by the CONTRACTOR with the AGENCY prior to performing any work under this contract.)

(END OF SECTION)

SECTION 006221**WORKERS' COMPENSATION AND EMPLOYERS'
LIABILITY CERTIFICATE OF INSURANCE**

Description of Contract:

**KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06**

Type of Insurance:

Workers' Compensation and Employers' Liability Insurance

THIS IS TO CERTIFY that the following policy has been issued by the below-stated company in conformance with the requirements of the General Conditions and is in force at this time, and is in a form approved by the Insurance Commissioner.

The Company will give at least ten (10) days' written notice to the AGENCY prior to cancellation of said policy for nonpayment of premium and thirty (30) days' written notice to the AGENCY prior to cancellation of said policy for any other reason.

POLICY NUMBEREXPIRATION DATELIMITS OF LIABILITY

Workers' Compensation:

Statutory Limits Under the Laws of the State of California

Employers' Liability:

\$ _____ Each Accident

\$ _____ Disease - Policy Limit

\$ _____ Disease - Each Employee

Named Insured (CONTRACTOR)_____
Insurance Company_____
Street Number_____
Street Number_____
City and State_____
City and StateBy: _____
(Company Representative)

Insurance Company Agent for Service
of Process in California:

Name

Agency

Street Number

City and State

Telephone Number

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend, or alter the coverage afforded by the policy listed herein.

This is to certify that the policy has been issued to the named insured for the policy period indicated, notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policy described herein is subject to all the terms, exclusions, and conditions of such policy.

(END OF SECTION)

SECTION 006222

**WORKERS' COMPENSATION AND EMPLOYERS'
LIABILITY INSURANCE ENDORSEMENT**

Description of Contract:

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06

Type of Insurance:

Workers' Compensation and Employers' Liability Insurance

This endorsement forms a part of Policy No. _____.

ENDORSEMENT

It is agreed that with respect to such insurance as is afforded by the policy, the Company waives any right of subrogation it may acquire against the AGENCY, the ENGINEER/ARCHITECT, the AGENCY'S REPRESENTATIVE, and their consultants, and each of their directors, officers, and employees by reason of any payment made on account of injury, including death resulting therefrom, sustained by any employee of the insured, arising out of the performance of the above-referenced contract.

The additional premium for this endorsement shall be _____%* of the California Workers' Compensation premium otherwise due on such remuneration.

This endorsement does not increase the Company's total limits of liability.

Named Insured (CONTRACTOR)

Insurance Company

Street Number

Street Number

City and State

City and State

By: _____
(Company Representative)

*CONTRACTOR'S insurance company to fill in this percentage.

(END OF SECTION)

SECTION 006223**LIABILITY INSURANCE CERTIFICATE OF INSURANCE**

Description of Contract:

**KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06**

Type of Insurance:

Liability Insurance

THIS IS TO CERTIFY that the following policies have been issued by the below-stated company in conformance with the requirements of the General Conditions and are in force at this time:

Type of Insurance	Policy Number	Effective Date	Expiration Date	Limits	
General Liability				General Aggregate	\$
				Products—Comp/Ops Agg.	\$
				Personal & Adv. Injury	\$
				Each Occurrence	\$
				Fire Damage (Any one fire)	\$
				Med. Expense (Any one person)	\$
Automobile Liability				Combined Single Limit	\$
				Bodily Injury (Per person)	\$
				Bodily Injury (Per Accident)	\$
				Property Damage	\$
Excess Liability				Each Occurrence	\$
				Aggregate	\$

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend, or alter the coverage afforded by the policies listed herein.

This is to certify that the policy has been issued to the named insured for the policy period indicated, notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions, and conditions of such policies.

The Company will give at least thirty (30) days written notice to the AGENCY prior to cancellation of said policy for any reason.

Named Insured (CONTRACTOR)

Insurance Company

Street Number

Street Number

City and State

City and State

By: _____
(Company Representative)

Insurance Company Agent for Service
of Process in California:

Name

Agency

Street Number

City and State

Telephone Number

NOTICE:

Insurers must be authorized to do business and have an agent for service of process in California and have at least a B+ VIII rating in accordance with the most current Best's Rating Guide.

(END OF SECTION)

SECTION 006224**LIABILITY INSURANCE ENDORSEMENT**

Description of Contract:

**KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06**

Type of Insurance:

Liability Insurance

This endorsement forms a part of Policy No. _____.

ENDORSEMENT

The AGENCY, the ENGINEER/ARCHITECT, the AGENCY'S REPRESENTATIVE, and their consultants, and each of their directors, officers, and employees are included as additional insureds under said policy but only while acting in their capacity as such and only as respects operations of the named insured. The insurance afforded to these additional insureds is primary insurance. If the additional insureds have other insurance which might be applicable to any loss, the amount of this insurance shall not be reduced or prorated by the existence of such other insurance.

This endorsement does not increase the Company's total limits of liability.

_____ Named Insured (CONTRACTOR)	_____ Insurance Company
_____ Street Number	_____ Street Number
_____ City and State	_____ City and State
	By: _____ (Company Representative)

(END OF SECTION)

SECTION 006225**BUILDERS' RISK "ALL RISK" CERTIFICATE OF INSURANCE**

Description of Contract:

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06

Type of Insurance:

Builders' Risk "All Risk" or Installation Floater Insurance

THIS IS TO CERTIFY that the following policy has been issued by the below-stated company in conformance with the requirements of the General Conditions and is in force at this time:

<u>POLICY NUMBER</u>	<u>EXPIRATION DATE</u>	<u>LIMITS OF LIABILITY</u>
----------------------	------------------------	----------------------------

_____	_____	\$ _____
-------	-------	----------

_____	_____	Deductible: \$ _____
-------	-------	----------------------

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend, or alter the coverage afforded by the policy listed herein.

This is to certify that the policy has been issued to the named insured for the policy period indicated, notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policy described herein is subject to all the terms, exclusions, and conditions of such policy.

The Company will give at least thirty (30) days' written notice to the AGENCY prior to cancellation of said policy for any reason.

Named Insured (CONTRACTOR)_____
Insurance Company_____
Street Number_____
Street Number_____
City and State_____
City and State

By _____

(Company Representative)

Insurance Company Agent for Service
of Process in California:

Name

Agency

Street Number

City and State

Telephone Number

NOTICE:

Insurers must be authorized to do business and have an agent for service of process in California and have at least a B+ VIII rating in accordance with the most current Best's Rating Guide.

(END OF SECTION)

SECTION 006226

**BUILDERS' RISK "ALL RISK" INSURANCE
ENDORSEMENT**

Description of Contract:

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06

Type of Insurance:

Builders' Risk "All Risk" or Installation Floater Insurance

This endorsement forms a part of Policy No. _____.

ENDORSEMENT

The AGENCY, the ENGINEER/ARCHITECT, the AGENCY'S REPRESENTATIVE, and their consultants, and each of their directors, officers, and employees are included as additional insureds, as their interest may appear, under said policy but only while acting in their capacity as such with respect to the above-referenced contract.

The insurance afforded to these additional insureds is primary insurance. If the additional insureds have other insurance which might be applicable to any loss, the amount of this insurance shall not be reduced or prorated by the existence of such other insurance.

This endorsement does not increase the Company's total limits of liability.

_____ Named Insured (CONTRACTOR)	_____ Insurance Company
_____ Street Number	_____ Street Number
_____ City and State	_____ City and State
	By _____ (Company Representative)

(END OF SECTION)

**KERN COUNTY WATER AGENCY
3200 Rio Mirada Drive
Bakersfield, CA 93308**

**MONITORING WELLS PROJECT
Contract No. KCWA 2006-06**

SECTION 007000 GENERAL CONDITIONS

TABLE OF CONTENTS

1.	CORRELATION AND INTENT OF DOCUMENTS	5
1.1	INTENT OF CONTRACT DOCUMENTS	5
2.	BID REQUIREMENTS AND CONDITIONS	5
2.1	SECURING DOCUMENTS	5
2.2	BID INSTRUCTIONS	5
2.3	APPROXIMATE ESTIMATE	6
2.4	INTERPRETATION OF PLANS AND DOCUMENTS	6
2.5	ADDENDA	7
2.6	OPENING BIDS	7
2.7	REJECTION OF BIDS	7
2.8	WITHDRAWAL OF BIDS	7
2.9	DISQUALIFICATION OF BIDDERS	7
2.10	COMPETENCY OF BIDDERS	7
2.11	MATERIAL WARRANTY	7
2.12	SUBCONTRACTORS	7
2.13	MODIFICATION OF BIDS	8
2.14	DISCREPANCIES	8
2.15	SERVICING AND MAINTENANCE	8
2.16	INTENTIONALLY OMITTED	8
2.17	SOLE SOURCE MATERIALS AND PRODUCTS	8
2.18	WORK PERFORMED OUTSIDE OF COUNTY	8
2.19	CONTRACTOR EXPERIENCE	8
3.	AWARD AND EXECUTION OF CONTRACT	8
3.1	AWARD OF CONTRACT	8
3.2	RETURN OF BID GUARANTEES	9
3.3	CONTRACT BONDS	9
3.4	EXECUTION OF CONTRACT	9

3.5	FAILURE TO EXECUTE CONTRACT	9
3.6	NOTICE TO PROCEED	10
4.	CONTROL OF THE WORK	10
4.1	AUTHORITY OF ENGINEER	10
4.2	USE OF MATERIALS FOUND ON THE PROJECT SITE	10
4.3	CONFORMITY WITH PLANS AND ALLOWABLE DEVIATIONS	10
4.4	COORDINATION OF GENERAL PROVISIONS, SPECIAL PROVISIONS AND PLANS	11
4.5	INTERPRETATION OF DRAWINGS AND SPECIFICATIONS	11
4.6	SUPERINTENDENCE	11
4.7	INSPECTION	11
4.8	FINAL INSPECTION	12
4.9	REMOVAL OF DEFECTIVE OR UNAUTHORIZED WORK	12
4.10	EQUIPMENT	12
4.11	RIGHT OF AGENCY TO TERMINATE CONTRACT	12
4.12	CONTRACTOR'S RIGHT TO TERMINATE CONTRACT	13
4.13	SUSPENSION OF WORK	13
4.14	CONSTRUCTION WATER	13
4.15	EROSION AND SEDIMENT CONTROL	13
4.16	SURFACE RESTORATION	14
4.17	POLLUTION CONTROL	14
4.18	SITE SECURITY	14
4.19	HAZARDOUS WASTES AND UNFORESEEN CONDITIONS	15
4.20	EXISTING UTILITIES	15
4.21	SUBCONTRACTS	16
5.	CONTROL OF MATERIALS	16
5.1	STORAGE OF MATERIALS	16
5.2	DELIVERY OF MATERIALS	16
5.3	MATERIALS AND EQUIPMENT	16
5.4	MATERIALS SPECIFIED	16
5.5	REMOVAL OF DEFECTIVE OR UNAUTHORIZED MATERIALS	17
5.6	SUBMITTALS	17
5.7	MANUALS AND RECORD DRAWINGS	18
5.8	PLACING WORK IN SERVICE	18

6.	WARRANTIES AND REPAIRS	18
6.1	WARRANTIES AND REPAIRS	18
7.	LEGAL RELATIONS AND RESPONSIBILITY	18
7.1	LAWS TO BE OBSERVED	18
7.2	EQUAL OPPORTUNITY	21
7.3	PATENTS	22
7.4	SANITARY PROVISIONS	22
7.5	PRESERVATION OF PROPERTY	22
7.6	RESPONSIBILITY FOR DAMAGE	22
7.7	DISPOSAL OF MATERIALS	23
7.8	CONTRACTOR'S RESPONSIBILITY FOR WORK	23
7.9	ACCEPTANCE OF CONTRACT	24
7.10	PROPERTY RIGHTS FOR MATERIALS	24
7.11	PERSONAL LIABILITY	24
8.	CONTRACTOR'S INSURANCE	24
8.1	GENERAL	24
8.2	INSURANCE SUBMITTALS	25
8.3	CONTRACTOR'S LIABILITY ENDORSEMENT	25
8.4	WAIVER OF SUBROGATION	27
8.5	CONTRACTOR'S LIABILITY NOT LIMITED INSURANCE	27
8.6	COMPLIANCE WITH STATE REQUIREMENTS FOR USE OF SUBCONTRACTORS	28
9.	PROSECUTION AND PROGRESS	28
9.1	SUBCONTRACTING	28
9.2	ASSIGNMENT	29
9.3	DELAYS AND TIME EXTENSION	29
9.4	TEMPORARY SUSPENSION OF WORK	30
9.5	PROGRESS SCHEDULE AND ORDER OF COMPLETION	30
9.6	FAILURE TO COMPLETE THE WORK IN THE TIME AGREED UPON - LIQUIDATED DAMAGES	30
9.7	PROJECT QUALITY CONTROL	31
9.8	SAFETY	33
9.9	CONTRACT CLOSEOUT	35
9.10	GUARANTEE AND WARRANTY	36

10.	MEASUREMENT AND PAYMENT	37
10.1	MEASUREMENT OF QUANTITIES	37
10.2	SCOPE OF PAYMENT	37
10.3	PAYMENT FOR EXTRA WORK	38
10.4	PROGRESS PAYMENTS	40
10.5	RIGHT TO WITHHOLD PAYMENTS	41
10.6	CLAIMS FOR EXTRA WORK/FOR EXTENSIONS OF TIME	42
11.	DEFINITIONS AND TERMS	44
11.1	DEFINITIONS	44

1. CORRELATION AND INTENT OF DOCUMENTS

1.1 INTENT OF CONTRACT DOCUMENTS

The intent of the Contract Documents is to prescribe the details for the construction and completion of the work which the Contractor undertakes to perform in accordance with the terms of the Contract Documents and to require a complete and finished piece of work. Where the Plans and Specifications describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. Unless otherwise specified, the Contractor shall furnish all labor, materials, tools, equipment and incidentals, and do all the work involved in executing the Contract in a satisfactory and competent manner.

The conditions set forth in the Contract Documents are complementary, and what is called for in any one (1) shall be as binding as if called for in all.

2. BID REQUIREMENTS AND CONDITIONS

2.1 SECURING DOCUMENTS

See Section 001000 titled, "Notice Inviting Sealed Proposals for information."

2.2 BID INSTRUCTIONS

Bids, to receive consideration, shall be made in accordance with these instructions:

Bids shall be made only upon the forms provided in the Contract Documents, with all items properly filled out. Non-erasable permanent ink shall be used; numbers shall be stated both in writing and in figures; signatures of all persons signing shall be in long-hand; and completed forms shall be without interlineations, alterations or erasures.

All Bids submitted shall include in the lump sum and/or unit prices bid, all sales or other taxes of city, county, state or federal government of every nature in effect at the time of bidding. If the product of a unit price and an estimated quantity does not equal the extended amount quoted, the unit price shall govern, and the correct product of the unit price and the estimated quantity shall be deemed to be the amount bid. If the sum of two or more items in a bidding schedule does not equal the total amounts quoted, the individual item amounts shall govern and the correct total shall be deemed to be the amount bid.

Bids by corporations must be signed in the corporate name by a corporate officer, and the corporate seal shall be fixed by the signature. The state of incorporation shall be below the corporate name. Bids by partnerships must be signed in the partnership name and signed by a partner with title shown.

Bids shall not contain any recapitulation of the work to be done. Alternate proposals will not be considered unless specifically required by the AGENCY. No oral, telephonic or telegraphic proposals or modifications will be considered. Bid forms shall have no blank spaces. A bid price shall be indicated for each bid item, or the word "None" entered.

Bids must be accompanied by a certified check, cashier's check or Bidder's bond, executed on the prescribed form and made payable to the AGENCY in an amount not less than ten percent (10%) of the total amount bid. Such check or bid bond shall be given as a guarantee that the Bidder will enter into a Contract if awarded the work. In case of refusal or failure to enter into the Contract, the check or bond will be retained by the AGENCY without any proof of actual loss.

Before submitting a Bid, each Bidder shall carefully examine and read the Plans and Specifications

and other parts of the Contract Documents, visit the site of the work, be fully informed as to all existing conditions and limitations, and shall include in the Bid a sum to cover the costs of all items included and necessary to perform fully the entire Contract.

Where the AGENCY, or the Consulting Engineers have made investigations of surface and subsurface conditions in areas where work is to be performed under the Contract, such investigations were made only for the purpose of study and design. Where such investigations have been made, Bidders or Contractor may, upon written request, inspect the records of the Consulting Engineers and the AGENCY as to such investigations subject to and upon the conditions hereinafter set forth. Such inspection of records may be made at the office of the AGENCY.

The records of such investigations, if any, are not a part of the Contract and are made available for inspection solely for the convenience of the Bidders and Contractor. It is expressly understood and agreed by Bidder and Contractor that neither the AGENCY nor the Consulting Engineers assume any responsibility whatsoever with respect to the sufficiency or accuracy of any investigations thus made, the records thereof, or of the interpretation set forth therein or made by the Consulting Engineers in their use thereof and there is no representation, warranty or guarantee, either express or implied, that the conditions indicated by such investigations or records thereof are correct or representative of those existing throughout such areas or any part thereof, or that unanticipated developments may not occur or that materials other than, or in proportions different from, those indicated may not be encountered.

When a log of test borings showing a record of the data obtained by the Consulting Engineers' investigation of the subsurface conditions is included with the drawings, it is expressly understood and agreed by Bidders and Contractor that said log of test borings does not constitute a part of the Contract, it represents only the opinion of the Consulting Engineers as to the character of the materials encountered in the test borings, and is included with the plans only for the convenience of Bidders and its use is subject to all of the conditions and limitations set forth in this section. Water levels that may be shown on a log of test borings are valid only for the stated date of observation. The water level may change from season to season and from year to year.

It is the Bidder's responsibility to see that the Bid is received in proper form, time, and place. If any Bid is received after the scheduled closing time for receipt of Bids, it shall be returned to the Bidder unopened.

2.3 APPROXIMATE ESTIMATE

The quantities, if any, given in the Bid are approximate only, being given as a basis for the comparison of Bids, and the AGENCY does not expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase, decrease or omit the amount of any class or portion of the work, as may be deemed necessary or advisable by the Engineer.

2.4 INTERPRETATION OF PLANS AND DOCUMENTS

Any explanation desired by the Bidders regarding the meaning or interpretation of any of the Contract Documents must be requested in writing, with sufficient allowance of time for receipt of reply before the time set for opening of Bids. Any such explanations or interpretations will be made in the form of Addenda to the documents and will be furnished to all Bidders who shall submit all Addenda with their Bids. Neither the Engineer nor any representative of the AGENCY is authorized to give oral explanations or interpretations of Contract Documents, and a submission of a Bid constitutes agreement by the Bidder that he/she has placed no reliance on any such oral explanation or interpretation. However, the Engineer may, upon inquiry by Bidder, orally direct the Bidder's attention to specific provisions of the Contract Documents that cover the subject of the inquiry.

2.5 ADDENDA

Any written Addenda issued before or during the time of bidding shall become a part of the Plans, Specifications and/or other Contract Documents. Failure to sign the Bid form indicating receipt of Addenda may result in the Bid being determined to be nonresponsive.

2.6 OPENING BIDS

Bids will be publicly opened and read as set forth in the Invitation for Bids. In case only one Bid is received, such Bid may be properly opened and read publicly in the usual manner, and accepted at the option of the AGENCY. Bidders or their representatives and other interested persons may be present at the opening and reading of Bids.

2.7 REJECTION OF BIDS

The AGENCY reserves the right to waive any informality in any Bid and to reject any and all Bids.

2.8 WITHDRAWAL OF BIDS

Any Bid may be withdrawn any time prior to the time fixed for opening of Bids only by a written request filed with the AGENCY for the withdrawal of the Bid. The request shall be executed by the Bidder or his/her duly authorized representative. The withdrawal of the Bid does not prejudice the right of the Bidder to file a new Bid prior to time of opening. No Bids may be withdrawn after opening of Bids, except pursuant to Public Contract Code Section 5101 et seq.

2.9 DISQUALIFICATION OF BIDDERS

More than one Bid Proposal from an individual, a firm or partnership, a corporation or an association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one Bid Proposal for the work contemplated will cause the rejection of all Bid Proposals in which such Bidder is interested. If there is reason for believing that collusion exists among the Bidders, any and all Bids may be rejected.

2.10 COMPETENCY OF BIDDERS

In accordance with the provisions of Chapter 9, Division 3 of the California Business and Professions Code and Section 3300 of the California Public Contract Code, Bidders must possess a State of California Contractor's License for Classification C33 which must be valid at the time of Bid, award, and completion of the Contract.

2.11 MATERIAL WARRANTY

Before any Contract is awarded, the Bidder may be required to furnish a complete statement of the origin, composition and manufacture of any or all materials to be used in the construction of the work, together with samples. The samples may be subjected to the tests provided for in the Plans and Specifications to determine their quality and fitness for the work.

2.12 SUBCONTRACTORS

Each Subcontractor, as defined in Public Contract Code Section 4113, which will perform work, labor or fabricate a portion of the work or improvement in excess of one-half of one percent ($\frac{1}{2}\%$) of the Contractor's total Bid price must be listed in the place provided, with name, address and indication of what class and portion of the work and percentage of Contract price will be done by each Subcontractor. All parts of Section 4100 through Section 4107, inclusive, of the Public Contract Code must be adhered to, including substitution

and work not listed. Penalties for failure to comply with the foregoing sections of the Public Contract Code are set forth in sections 4110 and 4111 of the Public Contract Code. The AGENCY specifically reserves the right to determine that any listed Subcontractor is not responsible and, if it so determines, to require substitution at no additional cost to the AGENCY.

2.13 MODIFICATION OF BIDS

A Bidder may modify his/her Bid by written communication provided such communication is received by the AGENCY prior to the closing time for receipt of Bids. The written communication should not reveal the Bid price but should state the addition or subtraction or other modification so that the final prices or terms will not be known by the AGENCY until the sealed Bid is opened.

2.14 DISCREPANCIES

In the case of discrepancy between unit prices and totals, unit prices will prevail. In case of discrepancy between words and figures, words will prevail.

2.15 SERVICING AND MAINTENANCE

Each Bidder must, if requested, furnish evidence that there is an efficient service organization which regularly carries a stock of repair parts for the proposed equipment to be furnished and installed in the work and that the organization is conveniently located for prompt service.

2.16 INTENTIONALLY OMITTED

2.17 INTENTIONALLY OMITTED

2.18 WORK PERFORMED OUTSIDE OF COUNTY

Unless specified otherwise in the Special Conditions, the Bidder shall include in the Bid, all expenses associated with work related to testing, sampling and inspection for any fabrication of materials, parts and equipment required in the scope of this Contract which occurs outside the County of Kern. Quality control for said work shall be performed by a certified laboratory or inspection firm which shall be pre-approved by the Engineer. Any onsite shop inspection required by the AGENCY shall be performed by the Engineer or his/her representative at the expense of the Contractor.

2.19 CONTRACTOR EXPERIENCE

The Bidder shall have been engaged in the business of the work specified herein for a period of at least ten (10) years. The Bidder shall submit a list with contact names and phone numbers of three (3) or more agencies for whom the Bidder has constructed similar projects. The list shall show the agencies' names and addresses, and an individual who may be contacted for reference for a project of similar scope. The individuals offered as references will be contacted. Failure to submit this list, or unsatisfactory responses from the references shall, in the Engineer's sole judgment, be grounds for a non-responsive Bid.

3. AWARD AND EXECUTION OF CONTRACT

3.1 AWARD OF CONTRACT

The AGENCY reserves the right to reject any and all Bid Proposals. If a Contract is awarded, it will be to the lowest responsible responsive Bidder whose proposal complies with all the requirements prescribed and will be made within sixty (60) calendar days after the public opening of Bids. All Bids will be compared on the basis of the Engineer's estimate of the quantities of work to be done.

The AGENCY reserves the right to accept or reject any and all Bids for a period of sixty (60) days after the date of opening, and to waive any informality or irregularity in any Bid. No Bid can be withdrawn during that period, except pursuant to Public Contract Code Section 5101 et seq.

3.2 RETURN OF BID GUARANTEES

All other Bid Bonds will be held until the Contract has been finally executed, after which they will be returned to the respective Bidders. The Bid Security will be forfeited to the AGENCY as liquidated damages without proof of loss if the Bid Proposal is accepted, a Contract based on that Bid Proposal awarded, and that Bidder fails to enter into the Contract in the form prescribed and submit the Performance and Payment Bonds, Insurance Certificates, and policies or endorsements required by the Contract Documents within fourteen (14) days after such award is made by the AGENCY.

3.3 CONTRACT BONDS

The successful Bidder must furnish two (2) good and sufficient bonds on forms included in these documents: the Faithful Performance Bond shall be executed in the amount of one hundred percent (100%) of the Contract price and shall guarantee faithful performance of the Contract by the Contractor; the Payment Bond shall be executed in the amount of 100 percent (100%) of the Contract price and shall guarantee payment of labor, materials and all bills and obligations arising from the performance of the Contract. These bonds shall remain in full force and effect for a period of one (1) year from the date of Notice of Completion.

The Attorney-in-Fact (resident agent) who executes the Performance Bond and Payment Bond on behalf of the surety company must attach a copy of his/her Power of Attorney as evidence of his/her authority. A notary shall acknowledge the Power of Attorney as of the date of the execution of the Surety Bond which it covers.

Any and all alterations, extensions of time, extra and additional work, and other changes authorized by these Plans and Specifications may be made without securing consent of the surety or sureties on the Contract Bonds and each bond shall so specify.

Whenever any surety or sureties on any such bonds required by law for the protection of the claims of laborers and material persons become insufficient, or the AGENCY has cause to believe that such surety or sureties have become insufficient, a demand in writing may be made of the Contractor for such further bond or bonds or additional surety, not exceeding that originally required, as is considered necessary, considering the extent of the work remaining to be done. Thereafter, no payment shall be made upon such Contract to the Contractor until such further bonds or additional surety has been furnished.

3.4 EXECUTION OF CONTRACT

The Contract shall be signed by the successful Bidder and returned, together with the Faithful Performance and Payment Bonds and insurance forms, in accordance with the time requirements set forth in paragraph G of Section 00810 titled, "Special Provisions."

No Bid Proposal shall be considered binding upon the AGENCY until the execution of the Contract by the AGENCY.

3.5 FAILURE TO EXECUTE CONTRACT

Failure to execute the Contract in accordance with the time requirements set forth in paragraph G of Section 00810 titled, "Special Provisions" after the Bidder has received notice of Contract award, shall be just cause for the annulment of the award at the sole election of the AGENCY. If the successful Bidder refuses or fails to execute the Contract and deliver the required bonds and certificates of insurance in proper form within the fifteen (15) days, the AGENCY may award the Contract to another Bidder. If the successful Bidder

returns the required bonds and certificates of insurance in proper form after the fifteen (15) days, and the AGENCY elects to award the Contract to the successful Bidder, the AGENCY will deduct from the Contract completion period, the number of calendar days in excess of fifteen (15) that the successful Bidder took to submit the bonds and certificates of insurance in proper form. If a Bidder to whom an award is made fails or refuses for any reason to execute the Contract or fails to furnish any or all of the required insurance or Contract Bonds in proper form, within the time stated, it is agreed and stipulated between AGENCY and the Bidder to whom any award is made that damage has been and will be sustained by the AGENCY. It is further agreed by the AGENCY and any and all Bidders that it will be impractical and extremely difficult to fully ascertain and determine the actual damage that the AGENCY will sustain by such delay. Therefore, the AGENCY and all parties who submit a Bid under this Notice of Invitation to Bid shall be deemed to have jointly studied and attempted to estimate the damages suffered by the AGENCY by such delay under these circumstances and agree that the amount of the Bidder's bond or check is agreed to as the liquidated damages payable by such Bidder(s). This Bidder's bond or check will be collected and held by the AGENCY as the sole property of the AGENCY for full compensation for the damages suffered by the AGENCY as a result of the Bidder's failure to execute the Contract and furnish the bonds and insurance as required.

3.6 NOTICE TO PROCEED

The AGENCY intends to issue a Notice to Proceed within ten (10) days of receipt of the executed Contract, proof of full compliance with all insurance requirements, Faithful Performance Bond, and the Payment Bond from the Contractor.

4. CONTROL OF THE WORK

4.1 AUTHORITY OF ENGINEER

The Engineer is defined as the person or firm authorized by the AGENCY to represent it during the performance of the work by the Contractor. The Engineer shall include persons, designated by the Engineer in writing to the Contractor, expressly authorized to act for the Engineer when the Engineer is not available to make decisions or take action required of the Engineer under the Contract Documents. The Engineer has the authority to decide all questions which may arise as to the quality or acceptability of materials furnished and work performed; and as to the manner of performance and rate of progress of the work; all questions which arise as to the interpretation of these Contract Documents; all questions as to the acceptable fulfillment of the Contract on the part of the Contractor; and all questions as to compensation. The Engineer's decision shall be final and not subject to appeal to AGENCY staff or Board of Directors. The Engineer shall further have the authority to implement decisions by direction to the Contractor which Contractor shall carry out promptly.

4.2 USE OF MATERIALS FOUND ON THE PROJECT SITE

The AGENCY does not warrant the suitability of any native material on the Project Site for use in the Project. The Contractor, with the approval of the Engineer, may use in the proposed construction such stone, gravel, sand or other material as may be found on the Project Site and deemed suitable in the opinion of the Engineer. The Contractor shall replace at his/her own expense all of that portion of the material so removed and used with other suitable material. No charge for native materials so used will be made against the Contractor. The Contractor shall not excavate or remove any material from any roadway location that is not within the excavation, as indicated by the slope and grade lines shown on the Contract Drawings, without written authorization from the Engineer.

4.3 CONFORMITY WITH PLANS AND ALLOWABLE DEVIATIONS

Pipes, canals, structures and finished surfaces in all cases shall conform with the lines, grades, cross-sections and dimensions shown on the Plans. Deviations from the Contract Drawings as may be required by the exigencies of the construction will be in all cases determined by the Engineer and authorized in writing

only.

4.4 COORDINATION OF GENERAL CONDITIONS, SPECIAL PROVISIONS, PLANS AND DRAWINGS

These General Conditions, Special Provisions, Technical Provisions, Plans, Drawings, Contract Change Orders, and all supplementary documents are essential parts of the Contract, and a requirement occurring in one (1) is as binding as though occurring in all. All parts are intended to be cooperative and to describe and provide for a complete work. In the event of conflict between Sections, the most stringent requirements shall apply.

4.5 INTERPRETATION OF DRAWINGS AND SPECIFICATIONS

Should it appear that the work to be done, or any matter, is not sufficiently detailed or explained in the Contract Documents, the Contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform to them as part of the Contract, so far as may be consistent with the AGENCY'S original intent. Any reference made in these Specifications or on the Drawings to any specification, standard, method, or publication shall be understood to refer to the latest revision of the reference. In the event of any discrepancy between any drawing and the figures written thereon, the figures shall be taken as correct.

4.6 SUPERINTENDENCE

Before starting work, the Contractor shall designate in writing an authorized representative who shall have complete authority to represent and act for the Contractor. An authorized representative of the Contractor shall be present at the Project Site at all times while work is in progress. Whenever the Contractor is not present on any part of the work where his/her presence may be desired to give direction, orders may be given by the Engineer in writing, and shall be received and obeyed by the superintendent or foreperson in charge of the particular work in reference to which orders are given. The Engineer shall have the authority to remove from the Project any employee of Contractor or any subcontractor, including, without limitation, any superintendent, foreman or other authorized representative, who refuses to obey an order or otherwise delays or disrupts the Project.

The Contractor shall supervise and direct the work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the Contract Documents. The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction, but the Contractor shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence, or procedure of construction where indicated in and required by the Contract Documents.

The Contractor shall be responsible to see that the completed work complies with the Contract Documents.

4.7 INSPECTION

One (1) or more inspectors may be assigned to observe the work and to act in matters of construction under this Contract. Such inspectors shall have the power to issue instructions and make decisions within the limitations of the authority of the Engineer. Such inspection shall not relieve the Contractor of the obligations to conduct comprehensive inspections of the work, to furnish materials, to perform acceptable work, and to provide adequate safety precautions in conformance with the intent of the Contract. Neither the inspection by the AGENCY through the Engineer, the AGENCY Inspector or any AGENCY employees, nor any order by the AGENCY for payment of money, nor any payment for, or acceptance of, the whole or any part of the work by the AGENCY, nor any extension of time, nor any possession taken by the AGENCY or its employees, shall operate as a waiver of any provision of this Contract, or any power herein reserved to the AGENCY or any right to damages herein provided, nor shall any waiver of any breach in this Contract be held to be waiver of any other or subsequent breach.

4.8 FINAL INSPECTION

When the Contract work has been completed, the Contractor shall file notification in writing with the Engineer, and the Engineer will make a final inspection.

4.9 REMOVAL OF DEFECTIVE OR UNAUTHORIZED WORK

All work which has been rejected shall be remedied or removed and replaced by the Contractor in an acceptable manner and no compensation will be allowed for such removal or replacement. Any work done beyond the lines and grades shown on the Contract Drawings or established by the Engineer, or any extra work done without written authority will be considered as unauthorized and will not be paid for. Work so done may be ordered removed at the Contractor's expense. Upon failure on the part of the Contractor to comply promptly with any order of the Engineer made under the provisions of this article, the Engineer shall have the authority to cause defective work to be remedied or removed and replaced, and unauthorized work to be removed, and to deduct the costs from any monies due or which become due the Contractor.

4.10 EQUIPMENT

The Contractor shall provide adequate and suitable equipment to produce the quality and quantity of work required, and, when ordered by the Engineer, shall remove unsuitable equipment from the site. All vehicles used to haul materials over existing highways shall be equipped with pneumatic tires.

4.11 RIGHT OF AGENCY TO TERMINATE CONTRACT

4.11.1 Termination for Convenience - The Agency may terminate this Contract in whole or in part at any time by written notice to the Contractor, if the Agency determines that termination is in its interest or the public interest. If the Contract is so terminated Contractor shall be entitled to payment for all work performed acceptably and to payment for all acceptable goods or services ordered by and delivered to Contractor before receipt of the written notice of termination, and to all reasonable costs of closing out the Contract, provided that Contractor provides a final itemized invoice for the above amounts within thirty (30) days after receiving the termination notice. Contractor shall not be entitled to its as-bid profit for the project or any work not performed. Profit on work performed shall be paid at the contract rates for time-and-materials extra work, provided that no profit shall be paid for mobilization, record Drawings, or O&M Manual line items, as applicable.

4.11.2 Termination for Cause - If the work to be done under this Contract shall be abandoned by the Contractor, or if this Contract shall be assigned by Contractor otherwise than as herein provided, or if a general assignment of assets be made for the benefit of creditors, or if a receiver should be appointed for the Contractor or any of Contractor's property, or if at any time the Engineer finds that the performance of the work under this Contract is being unnecessarily delayed or that the Contractor is violating any of the conditions or covenants of this Contract, or executing the same in bad faith or otherwise not in accordance with the terms of said Contract, or if the work be not substantially completed within the time named for its completion or within the time to which such completion date may be extended, then the AGENCY may serve written notice upon the Contractor and his/her Surety of said AGENCY'S intention to terminate this Contract and, unless within five (5) days after the serving of such notice upon the Contractor, a satisfactory arrangement is made for the continuance thereof, this Contract shall cease and terminate. In the event of such termination, the AGENCY will immediately serve notice thereof upon the Surety and the Contractor, and the Surety shall have the right to take over and complete the work; provided, however, that if the Surety does not commence performance within fifteen (15) days from the date of said notice of termination, the AGENCY may take over the work and prosecute same to completion, by Contract or otherwise, for the account and at the expense of the Contractor, and the Contractor and its Surety shall be liable to the AGENCY for any and all excess costs sustained by the AGENCY by reason of such prosecution and completion, including, without limitation, all costs incurred by reason of termination and all damages, including liquidated damages, from late completion. In such event the

AGENCY may take possession of, and utilize in completing the work all such plant materials, equipment, and tools as may be on the work site and necessary therefore.

4.12 CONTRACTOR'S RIGHT TO TERMINATE CONTRACT

If the work shall be stopped in its entirety under an order of any court or other public authority for a period of three (3) months through no act or fault of the Contractor or of anyone employed by him/her, then the Contractor may on seven (7) days' written notice to the AGENCY, stop work or terminate this Contract and recover from the AGENCY payment for all work executed, any losses sustained on any material, and a ten percent (10%) profit on work performed.

4.13 SUSPENSION OF WORK

The AGENCY reserves the right to suspend and reinstate execution of the whole or any part of the work contracted without invalidating the provisions of the Contract in any way.

Orders for suspension or reinstatement of work will be issued by the AGENCY to the Contractor in writing. The time for completion of the work so suspended shall be extended for a period equal to the time lost by reason of the suspension.

Extra direct costs and expenses not including lost profit and/or overhead costs which, in the opinion of the Engineer, are caused by work suspensions so ordered by the AGENCY will be paid by the AGENCY to the Contractor.

4.14 CONSTRUCTION WATER

Water for construction and testing purposes required by the Contract Documents at the Project Site will be available during normal working hours from the Cross Valley Canal as approved by the AGENCY at no cost to the Contractor. Arrangements and verifications as to the sources, locations, and times for water use by the Contractor shall be made with the AGENCY prior to any and all water use. The Contractor shall make all arrangements and supply all pumps, hoses, fittings, or other related items for drawing water at no cost to the AGENCY. Any costs of water for repair of defective work, re-testing of rejected work, clean up of Contractor's equipment or repair of damage to property of third parties, shall be borne by Contractor.

4.15 EROSION AND SEDIMENT CONTROL

All actions and costs for erosion and sedimentation control shall be the responsibility of the Contractor.

The Contractor shall provide all reasonable erosion and sedimentation control measures that may be required by the state, county, and/or local jurisdictions and to protect disturbed ground from erosion and watercourses from sedimentation. Areas of clearing, grading and/or other disturbance shall be confined within the limits shown on the plans, or as marked by the Engineer, to prevent undue damage by construction.

Precautions shall be taken by the Contractor to ensure that vehicles and equipment do not track and/or spill earth and/or materials onto public and/or private streets, roads, or rights-of-way. Any spillage and/or tracking shall be immediately removed should erosion and/or sediment discharge occur, even on a temporary basis, control measures shall immediately be taken by the Contractor to avoid further problems.

Proper erosion control measures and practices shall be followed during construction. An Erosion and Sediment Control Plan shall be submitted to the AGENCY for its records not later than ten (10) days before implementing any erosion control measures or practices included in the plan. Contractor shall be responsible for the filing of all notices required by the State Water Resources Control Board for the compliance with all permits applicable to storm water and erosion control during construction.

4.16 SURFACE RESTORATION

Surface restoration shall be defined as that work necessary to restore the excavated area above backfill and the scarred surrounding work areas to a condition equivalent to or better than existed prior to the construction. This may include pavement replacement, seeding, shrub and plant replacement, and restoration of ditches and drainage areas.

The replacement of grass and/or wild flowers shall be accomplished by seeding. The kind and type of seed is to be determined by the Engineer. Replacement of plants and shrubs shall be required where the easement travels through a developed parcel. In this case the AGENCY or Developer and Contractor shall agree before proceeding as to which plants and shrubs shall be saved or replaced.

The restoration of trench surfaces shall include measures to prevent surface erosion of the trench. This shall include seeding, cutoff walls, surface header boards, water bars, interceptor dikes, gravel filter dikes, or rip rap energy dissipaters. These measures shall be used as required to prevent surface erosion.

4.17 POLLUTION CONTROL

Water - Oily or greasy substances, or other materials harmful to fish life, originating from the Contractor's operation shall not be allowed to enter or be placed where they may later enter any river, creek, canal, stream, or other water way. The Contractor shall not increase the turbidity of any watercourse flowing past the construction site unless precautions are taken downstream of the work to limit the increase in turbidity to a maximum of 25 Jackson Turbidity Units. Contractor shall be responsible for preparing a Storm Water Pollution Prevention Plan (SWPPP) and complying with such plan during the construction project.

Noise - It shall be the Contractor's responsibility to keep noise pollution due to construction activities as low as possible. In no case shall noise levels produced by the Contractor exceed any of these maximums or the Community Standards whichever are more stringent:

- A. No individual piece of equipment shall produce a noise level exceeding 55 dBA at a distance of twenty-five feet (25'). Equipment in excess of this level shall be mitigated with the use of sound barrier walls.
- B. The noise level at any point outside the right-of-way or temporary construction area shall not exceed 55 dBA during non-working hours. No equipment violating these standards shall be allowed to operate. Operations in excess of this level shall be mitigated with the use of sound barrier walls.

Air - The Contractor shall comply with all state and local pollution control regulations. No burning shall be allowed on the Project. Idling of internal combustion engines shall be held to an absolute minimum. All work shall conform to the San Joaquin Valley Air Pollution Control District (SJVAPCD) and the California Air Resources Board (CARB). Contractor shall be responsible for preparing a Dust Control Plan and obtaining permits, if necessary, and shall be responsible for all associated costs.

4.18 SITE SECURITY

The Contractor shall provide in advance of starting construction, a list of all employees and vehicles that need access to the site. The Contractor shall provide periodic updates to this list. The Contractor shall provide a list of all scheduled deliveries to the Project Site. This list shall include the items to be delivered, the name of the delivery company and the time the delivery is to be made.

All access gates to the Project Site are to remain closed and locked at all times that traffic is not using the gates. The Contractor will be assigned a specific access point at the Project Site. The CONTRACTOR may provide security personnel for access control during Project work hours.

It is the Contractor's sole responsibility to secure all equipment, material, tools and other items used during the execution of the Contract.

4.19 HAZARDOUS WASTES AND UNFORESEEN CONDITIONS

In accordance with Section 7104 of the California Public Contract Code, if the work contemplated hereunder involves digging trenches or other excavations that extend deeper than four (4) feet below the surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the AGENCY, in writing, of any: (i) material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the California Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (ii) subsurface or latent physical conditions at the site differing from those indicated; or (iii) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

The Agency will promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work shall issue a change order under the procedures described in this Contract. In the event that a dispute arises between the Agency and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties.

4.20 EXISTING UTILITIES

The Contractor shall contact the following parties to ascertain and verify the existence and location of utility lines and facilities and shall coordinate all work in accordance with the information obtained from such inquiries in order to prevent damage to such lines and facilities.

Underground Service Alert (USA) (1-800-642-2444)

Prior to conducting any excavation, the Contractor shall contact the appropriate regional notification center as required by Government Code Section 4216 et seq. In accordance with Government Code Section 4215, the Contractor shall be compensated for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating existing main or trunkline utility facilities not indicated in the Contract Plans and Specifications with reasonable accuracy, and for the equipment on the Project necessarily idled during such work; provided that the Contractor shall first notify the AGENCY before commencing work on locating, repairing damage to, removing or relocating such utilities.

Any sewer crossings shall conform to the State Health Department regulations for water/sewer separation and materials. Cost for special pipeline materials to meet Health Department regulations, and repair of services damaged shall be included in the cost of the bid items to which the work is appurtenant. No separate payment will be made.

The Engineer or his/her representative has endeavored to determine the existence of utilities at the work site from the records of the AGENCY's of known utilities in the vicinity of the work. The positions of these utilities, as derived from such records, are shown on the Plans. The service connections to these utilities may not be shown on the Plans.

The Contractor shall make his/her own investigations, including exploratory excavations, to determine the locations and type of existing service laterals or appurtenances when their presence can be inferred from the presence of other visible facilities, such as buildings, meters and junction boxes, on or adjacent to the work

site.

4.21 SUBCONTRACTS

The attention of the Contractor is directed to the provisions of Public Contract Code Sections 4100-4114, regarding subcontracting and said provisions are by this reference incorporated herein and made a part hereof.

Each Subcontract shall contain a suitable provision for the suspension or termination thereof should the work be suspended or terminated or should the subcontractor neglect or fail to conform to every provision of the Contract Documents insofar as such provisions are relevant. No subcontractor or supplier will be recognized as such, and all persons engaged in work will be considered as employees of the Contractor, and the Contractor will be held responsible for their work, which shall be subject to the provisions of the Contract Documents. The Contractor shall be fully responsible to the AGENCY for the acts or omissions of his/her subcontractors and the persons either directly or indirectly employed by him/her. Nothing contained in the Contract Documents shall create any contractual rights for a subcontractor against the AGENCY. If a legal action, including arbitration and litigation, against the AGENCY is initiated by a subcontractor or Supplier, the Contractor shall reimburse the AGENCY for the amount of legal, engineering and all other expenses incurred by the AGENCY in defending itself in said action.

The AGENCY and the Engineer reserve the right to approve all subcontractors.

5. CONTROL OF MATERIALS

5.1 STORAGE OF MATERIALS

Materials shall be stored to ensure the preservation of their quality and fitness for the work. When considered necessary by the Engineer, they shall be placed on wooden platforms or other hard, clean surfaces and not on the ground. They shall be placed under cover when so directed. Stored materials shall be located to facilitate prompt inspection. Materials shall not be located or stored where detrimental to traffic and pedestrians. All material paid for as "Materials on Hand" shall be securely stored and shall be covered by the Contractor's fire and theft insurance.

5.2 DELIVERY OF MATERIALS

The Contractor shall furnish the Engineer with a duplicate delivery ticket for all materials to be used in the work. The delivery tickets shall show the quantity and type of materials to be used in the work.

5.3 MATERIALS AND EQUIPMENT

Unless specifically provided otherwise in each case, all materials and equipment furnished for permanent installation in the work shall be new, unused and undamaged when installed or otherwise incorporated in the work.

5.4 MATERIALS SPECIFIED

Whenever any material, process, or article is indicated or specified by grade, patent or proprietary name, or by name of manufacturer, such specification shall be deemed to be used for the purpose of facilitating description of the materials, process, or articles desired and shall be deemed to be followed by the words "or (approved) equal," and the Contractor may offer any material, process, or article which shall be substantially equal or better in every respect to that so indicated or specified; provided, however, that if the material, process, or article offered by the Contractor is not, in the opinion of the Engineer, equal or better in every respect to that specified, then the Contractor must furnish the material, process, or article specified or one that in the opinion of Engineer is the substantial equal or better in every respect. In the event that the

Contractor furnishes material, process, or article more expensive than that specified, the difference in cost of such material, process, or article so furnished shall be borne by the Contractor.

All materials, equipment, and supplies provided shall, without additional charge to AGENCY, fully conform with all applicable state and federal safety laws, rules, regulations, and orders, and it shall be Contractor's responsibility to provide only such materials, equipment, and supplies notwithstanding any omission in the Contract Documents therefore or that a particular material, equipment, or supply was specified.

In accordance with Section 3400 of the Public Contract Code, the Contractor shall submit data substantiating requests for substitution of "equal" items within thirty-five (35) days after award of the Contract.

5.5 REMOVAL OF DEFECTIVE OR UNAUTHORIZED MATERIALS

The Contractor, upon written notice from the AGENCY, shall remove from the premises all materials condemned or rejected by the AGENCY, as defective, unsound, or improper, or in any way failing to conform to the requirements of the Contract Documents. The Contractor shall at his/her sole expense, make good all work destroyed or damaged by such removal, and promptly replace materials damaged or improperly worked by him/her and re-execute his/her own work in accordance with the Contract without expense to the AGENCY. This includes re-executing or replacing the work of any other contractor that is in any way affected by the removal of such defective work of the Contractor. The obligations of the Contractor under this section shall not extend to defective materials or equipment supplied by the AGENCY for incorporation into the work performed under this Contract. If the Contractor does not respond within ten (10) days after written notice, the AGENCY may remove and replace such materials at the expense of the Contractor.

5.6 SUBMITTALS

Submittals will be required for all materials, equipment, fabricated articles and purchased items. No portion of the work requiring a shop drawing submittal shall be commenced until the submittal has been reviewed by the Engineer and returned to the Contractor with a notation indicating that resubmittal is not required. Submittals required by the Specifications shall be in accordance with this section, the Technical Specifications, and Section 001300 unless otherwise specified. Submittals not in accordance with the section requiring the submittal will be returned to the Contractor as unsatisfactory. Prior to transmission to the Engineer, the Contractor shall carefully review each submittal to confirm that it is complete and to verify whether or not the proposed items of work conform to Contract requirements. Each submittal shall be dated, signed, and certified by the Contractor as being correct and in conformance with the Drawings and the Specifications.

The Engineer will not review any items which have not been certified by the Contractor. All non-certified submittals will be returned to the Contractor without action taken by the Engineer, and any delays caused thereby shall be the responsibility of the Contractor. Items that are not in accordance with the Contract requirements shall be conspicuously noted as such. The Contractor shall identify each proposed deviation on the corresponding letter of transmittal and include a written explanation of the necessity for each deviation with the letter of transmittal. Deviations that are not conspicuously marked on both the letter of transmittal and the corresponding drawing or data will be deemed to have been disapproved by the Engineer or not reviewed by the Engineer.

Only those products that have been approved at the time of opening bids will be acceptable for use in the work; except, products may be approved after the bid opening date when there is sufficient time within the Contract period to permit testing and qualification.

Criteria pertaining to the qualification of products may be obtained from the Engineer. No extension of time will be granted for the purpose of testing and qualifying proposed products. If the Contractor believes that any shop drawing or communication relative thereto calls for changes in the work for which the Contract amount or time for completion should be changed, he/she shall not proceed with the changes in the work so

called for and shall promptly notify the Engineer in writing of his/her estimate of the changes in the Contract amount and time for completion he/she believes to be appropriate

The Contractor shall refer to Section 001300 titled, "Submittals" and the Technical Specifications for project specific submittal requirements.

5.7 MANUALS AND RECORD DRAWINGS

Service and Parts Manuals - The Contractor shall furnish the AGENCY four (4) copies of all installation, operation, and service manuals, with a parts list for each piece of equipment furnished. The service and parts manuals shall be labeled, indexed, and organized in three (3)-ring binders.

Record Drawings - On the job, the Contractor shall maintain an up-to-date marked set of the As-Built Contract Drawings, showing the location and details of any changes made during construction. The Contractor shall give the AGENCY a clean, marked set of the As-Built Contract Drawings showing construction changes before final payment and acceptance of the work. These shall be received and approved by the Engineer prior to final acceptance of electrical work.

5.8 PLACING WORK IN SERVICE

If desired by the AGENCY, portions of the work may be placed in service when completed, and the Contractor shall provide proper access to the work for this purpose. Nothing in this article shall be construed as relieving the Contractor of the full responsibility for completing the work in its entirety, for making good all defective work and materials, for protecting the work from damage, and for being responsible for damage and for the work as set forth in the General Provisions and other Contract Documents, nor shall such action by the AGENCY be deemed completion and acceptance, and such action shall not relieve the Contractor, his/her sureties, or insurers of the provisions of the section on CONTRACTOR'S INSURANCE, and the article on INDEMNIFICATION.

6. WARRANTIES AND REPAIRS

6.1 WARRANTIES AND REPAIRS

The Contractor hereby agrees to pay to the AGENCY, or to make at his/her own expense, all repairs, replacements or payments necessitated by defects in materials or workmanship supplied under the terms of this Contract which exist within one (1) year after the date of final acceptance of the work. This agreement shall cover defects which shall be in existence during such one (1) year period but which shall not become apparent until thereafter. The Contractor shall be fully responsible for all direct and indirect damages and expenses to the AGENCY proximately caused by such defects in materials or workmanship including defects in materials or workmanship supplied to the Contractor by any subcontractor or manufacturer of equipment. As to any equipment which bears a guarantee or warranty in writing or by law for a period longer than one (1) year, Contractor hereby stipulates and agrees that such guarantee shall inure to the benefit of the AGENCY for such longer period. The effective date for the start of the guarantee or warranty period shall be the date of recordation of the Notice of Completion. The Contractor also agrees to hold the AGENCY harmless from liability of any kind arising from damage due to said defects. The Contractor shall make all repairs and replacements or payments promptly upon receipt of written order for same from the AGENCY. If the Contractor fails to make the repairs, replacements or payments promptly, the AGENCY may do the work, and the Contractor and his/her Surety shall be liable for the cost thereof.

7. LEGAL RELATIONS AND RESPONSIBILITY

7.1 LAWS TO BE OBSERVED

The Contractor shall keep fully compliant with all local, county, state and federal laws and ordinances

and regulations which in any manner affect those engaged or employed in the work, or the manufacture of materials used in the work, or which in any way affect the conduct of the work, and of all such orders and decrees of those having any jurisdiction or authority over the same.

7.1.1 Hours of Labor - The Contractor shall forfeit, as penalty to the AGENCY, twenty-five dollars (\$25.00) for each worker employed in the execution of the Contract by the Contractor or by any subcontractor of any tier under the Contractor, for each calendar day during which such worker is permitted or required to labor more than eight (8) hours in any one day or forty (40) hours per one (1) calendar week, unless compensated at not less than time and a half per provisions of the Labor Code, Section 1810 to Section 1816 thereof, inclusive.

7.1.2 Exception - If the prevailing wage determination requires a higher rate of pay for overtime work than is required under Labor Code Section 1815, then that higher overtime rate shall be paid as specified in subsection 16200(a)(3)(F) of the Title 8, California Code of Regulations.

7.1.3 Labor Discrimination - A contractor shall not discriminate in the employment of persons upon public works on any basis listed in Subdivision (a) of Section 12940 of the Government Code, as those bases are defined in Sections 12926 and 12926.1 of the Government Code, except as otherwise provided in Section 12940 of the Government Code. Every contractor for public works who violates this Section is subject to all the penalties imposed for a violation of this Chapter.

7.1.4 Prevailing Wage - The minimum rates of wages applicable to the work to be done have been determined in accordance with the provisions of Sections 1770 et seq. of the California Labor Code.

Copies of the current schedules for prevailing wages are on file in the AGENCY'S office, and the contents of those schedules are included herein as if set forth in full. The Contractor shall post at each job site in a place readily available to all workers the current prevailing wage rate for each craft, group, and worker working on the job.

The Contractor shall forfeit, as penalty to the AGENCY, fifty dollars (\$50.00) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates for any work done under the Contract by him/her or by any subcontractor under him/her, in violation of the provisions of the Labor Code and in particular, Sections 1770 to 1780 thereof, inclusive. In addition to this penalty, the difference between such prevailing wage rate and the amount actually paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor.

The AGENCY will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate adopted by the AGENCY. The possibility of wage increases is one of the elements to be considered by the Contractor in determining bid prices, and will not under any circumstances be considered as the basis of a claim against the AGENCY.

7.1.5 Payroll Records - Attention is directed to Section 1776 of the Labor Code of the State of California. Regulations complementing said Section 1776 are located in Sections 16000 and Sections 16400 through 16403 of Title 8, California Code of Regulations. The Contractor is required to comply with the provisions of Section 1776 of said Labor Code. The Contractor shall also be responsible for compliance by his/her subcontractors.

7.1.6 Reporting Requirements and Sanctions - Failure to provide specific information, records, reports, certifications, or any other documents required for compliance with these Specifications shall be considered noncompliance. The minimum documents required include:

List of Subcontractors - Due seven (7) calendar days after date of Preconstruction Conference;

Certified Payroll Reports - An original and three (3) legible copies are due within seven (7) calendar

days, upon the request of the Engineer;

Fringe Benefit Statement - Due with first payroll report and any time thereafter that fringe benefits change; and

Apprenticeship Certifications - Due with the first payroll report on which the apprentice appears. Other documentation may be required depending on the source of funding for the Project.

7.1.7 Apprentices - In accordance with the provisions of Section 1777.5 of the Labor Code, and in accordance with the regulations of the Department of Industrial Relations, Division of Apprenticeship Standards, the appropriate number of properly indentured apprentices are to be employed in the prosecution of the work. Information relative to number of apprentices, identification, wages, hours of employment and standards of working conditions shall be obtained from the Department of Industrial Relations, Division of Apprenticeship Standards.

7.1.8 Fair Labor Standards Act - Bidders note the fact that Contractors are required to meet the provisions of the Fair Labor Standards Act of 1938, and as amended (52 Stat. 1060).

7.1.9 Registration of Contractors - In accordance with the provisions of Chapter 9, Division 3 of the Business and Professions Code and Section 3300 of the Public Contract Code, bidders must possess a State of California Contractor's License for the proper classification which must be valid at the time of bid, award, and until completion of the Contract.

CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS' STATE LICENSE BOARD, 9835 GOETHE ROAD, SACRAMENTO, CALIFORNIA. MAILING ADDRESS: P.O. BOX 26000, SACRAMENTO, CALIFORNIA 95826.

7.1.10 Permits and Licenses - The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work. The costs for permits and inspections shall be included in the price entered in the Proposal under line item number one (1), "Mobilization and Demobilization". When the terms of permits obtained by either the Contractor or the AGENCY require inspections by agencies or authorities other than the AGENCY, the Contractor shall schedule the inspections and notify the Engineer a minimum of twenty-four (24) hours prior to the inspection being performed.

All work performed within road rights-of-way shall be done in accordance with the requirements of the Kern County Department of Public Works and/or City of Bakersfield Department of Public Works encroachment permit(s) which are hereby made a part of the Specifications. It shall be the responsibility of the Contractor to determine all requirements of said entities and to comply with all requirements. The Contractor shall be responsible for ascertaining the need for and obtaining any additional permits required. If there are conflicts among the requirements of said entities and AGENCY'S requirements, the most restrictive requirements shall be used.

7.1.11 Codes - The codes and regulations, together with local amendments when applicable adopted by the state and other governmental authorities having jurisdiction, shall establish minimum requirements for this Project. Wherever references are made in the Contract to the respective standards or codes in accordance with work are to be performed or tested, it is to be understood that the revision of the standards in effect on the date of the Bidder's proposal shall apply unless otherwise expressly set forth in the Contract.

7.1.12 Standard Specifications - Where the state standard specifications or the words "Standard Specifications" are referred to, the reference shall be to the Standard Specifications, State of California, State

Department of Transportation, ("Caltrans") July 1999, except where in the case where work is subject to Caltrans' approval, in which case the latest addition shall be used. As a minimum, this Project shall comply with the following:

- A. California Building Standards Administrative Code, 2001 edition
- B. California Building Code, 2001 edition
- C. California Electrical Code, 2001 edition
- D. California Mechanical Code, 2001 edition
- E. California Plumbing Code, 2001 edition
- F. California Fire Code, 2001 edition
- G. California Code of Regulations: Title 8, Industrial Relations, CAL-OSHA
- H. California Code of Regulations: Title 19, Public Safety

7.1.13 Fire Hazard - Flammable, volatile solvents in coating system components constitute a major hazard with regard to fire and explosions wherever flame or spark exposure is possible. All flames, smoking, and unapproved welding, etc., are strictly prohibited in work or storage areas. Fire abatement devices shall be readily available and in operating condition. Necessary precautions shall be taken to keep fire hazard to a minimum; all oily rags, waste, and other combustibles not in covered containers shall be removed from the area daily. All coatings, solvents, thinners and related products shall be stored in conformance with applicable state, county and/or local fire codes pertaining to flammable materials.

7.1.14 Public Contracts Code Section 7103.5 - In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties.

7.2 EQUAL OPPORTUNITY

During the performance of this Contract, the Contractor agrees as follows:

7.2.1 The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this Equal Opportunity clause.

7.2.2 The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

7.2.3 The Contractor will send to each labor union or representative of workers, with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

7.2.4 The Contractor will comply with all provisions of federal and state law, and of the rules, regulations, and relevant orders of the Secretary of Labor, Director of the California Department of Fair

Employment and Housing and/or the California Labor Commissioner.

7.2.5 The Contractor will furnish all information and reports required by federal or state law, and by the rules, regulations, and orders of the Secretary of Labor, Director of the California Department of Fair Employment and Housing, California Labor Commissioner, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering AGENCY and the Secretary of Labor, Director of the California Department of Fair Employment and Housing or California Labor Commissioner for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

In the event of the Contractor's noncompliance with the Equal Opportunity clause of this Contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended, in whole or in part, and the Contractor may be declared ineligible for further AGENCY contracts, and such other sanctions may be imposed and remedies invoked by rule, regulation, or order of the Secretary of Labor, Director of the California Department of Fair Employment and Housing or California Labor Commissioner.

The Contractor will include this Equal Opportunity clause in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor, Director of the California Department of Fair Employment and Housing or California Labor Commissioner, so that such provisions will be binding upon each subcontractor or vendor, the Contractor will take such action with respect to any subcontract or purchase order as the administering AGENCY may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering AGENCY, the Contractor may request the administering AGENCY to enter into such litigation to protect the interests of the administering AGENCY.

The AGENCY further agrees that it will be bound by the above Equal Opportunity clause with respect to its own employment practices when it participates in assisted construction work.

The AGENCY agrees that it will assist and cooperate actively with the administering AGENCY and the Secretary of Labor, Director of the California Department of Fair Employment and Housing in obtaining the compliance of Contractors and subcontractors with the Equal Opportunity clause and the rules, regulations and relevant orders of the Secretary of Labor, Director of the California Department of Fair Employment and Housing, that it will furnish the administering AGENCY and the Secretary of Labor, Director of the California Department of Fair Employment and Housing such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering AGENCY in the discharge of the AGENCY'S primary responsibility for securing compliance.

7.3 PATENTS

The Contractor shall assume all costs arising from the use of patented materials, equipment, devices or processes used on or incorporated in the work, and agrees to indemnify and save harmless the AGENCY, the Directors, the General Manager, the Engineer, their employees and duly authorized representatives from all suits at law, or actions of every nature for, or on account of the use of any patented materials, equipment, devices or processes.

7.4 SANITARY PROVISIONS

The Contractor shall provide sanitary facilities at all work locations.

7.5 PRESERVATION OF PROPERTY

Due care shall be exercised to avoid injury to street improvements or facilities, utilities' facilities, adjacent property per Civil Code 832, and roadside trees and shrubbery that are not to be removed. If ordered by the Engineer, the Contractor shall provide and install suitable safeguards, approved by the Engineer, to

protect such objects from injury or damage. If such objects are injured or damaged by reason of the Contractor's operations, they shall be replaced or restored, at the Contractor's expense, to a condition as good as when the Contractor began work.

Full compensation for furnishing all labor, materials, tools and equipment and doing all work involved in protecting property as above specified, shall be considered as included in the prices paid for the various Contract items of work, and no additional compensation will be made.

7.6 RESPONSIBILITY FOR DAMAGE

The Directors, the General Manager, the Engineer, volunteers and employees of the AGENCY shall not be answerable or accountable in any manner for any loss or damage that may happen to the work or any part thereof, or for any material or equipment used in performing the work, or for injury or damage to any person or persons, either workers or the public, or for damage to an adjoining property from any cause whatsoever during the progress of the work or at any time before final acceptance.

The Contractor hereby agrees to defend, indemnify and to hold the AGENCY, and all representatives, employees, volunteers, and Engineers of the AGENCY harmless and free of any and all liability, claims, judgments or damages of whatsoever kind or character, including attorney's fees and costs of all types incurred in defending any of the parties from said claims or liability, which may directly or indirectly arise from acts or omissions of the Contractor, the Contractor's independent contractors, and employees, representatives, and invitees of each of them, regardless of whether or not there shall be insurance policies covering and applicable to such damages, claims or liabilities.

7.7 DISPOSAL OF MATERIALS

Unless otherwise specified in the Special Provisions, the Contractor shall make arrangements for disposing of materials. Excess excavated material not required for backfill shall be disposed of legally by the Contractor.

When any materials, including excess or unsuitable excavated earth or other roadway materials, are to be disposed of outside the right-of-way, the Contractor shall first obtain a written permit from the property OWNER on whose property the disposal is to be made and shall file said permit or certified copy, together with a written release from the property OWNER, absolving the AGENCY from any and all responsibility in connection with the disposal of material on said property. Before any material is disposed of on said property, the Contractor shall obtain permission from the Engineer to dispose of the material at the location designated in said permit.

Unless otherwise provided in the Special Provisions, full compensation for all costs involved in disposing of materials, including all costs of overhaul, shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made.

7.8 CONTRACTOR'S RESPONSIBILITY FOR WORK

Until the formal acceptance of the work by the AGENCY, the Contractor shall have the charge and care and shall bear the risk of injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or non-execution of the work.

The Contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense, except such injuries or damages occasioned by the acts of the federal government or acts of war. In case of suspension of work from any cause whatsoever, the Contractor shall be responsible for the work as previously specified and shall also be responsible for all materials delivered to the worksite. Where necessary to protect the work from damage, the Contractor shall, at his/her own expense, provide suitable

drainage of the worksite and erect such temporary structures as are necessary to protect the work from damage during any period of suspension of work.

The Contractor shall provide twenty-four (24) hour emergency service for all maintenance and operations of the work specified and shall supply the AGENCY with the name and phone number of the responsible person. Emergency service shall be within thirty (30) minutes from the time of notification. If the Contractor fails to provide this service the AGENCY shall perform such emergency service and the cost thereof shall be deducted from the next Progress Pay Estimate due the Contractor.

7.9 ACCEPTANCE OF CONTRACT

When the Engineer has made the final inspection and determines that the Contract has been completed in general conformance with these Plans and Specifications, the Engineer shall submit to the Board of Directors the recommendation that the AGENCY formally accept the Contract.

7.10 PROPERTY RIGHTS FOR MATERIALS

Nothing in the Contract shall be construed as vesting to the Contractor any right to property or materials used after they have been attached or affixed to the work or the soil, or after payment has been made for ninety percent (90%) of the value of materials delivered by the Contractor to the Project Site, or other location approved in writing by the Engineer.

7.11 PERSONAL LIABILITY

In carrying out any of the provisions hereof, or in exercising any authority granted by the Contract, there will be no personal liability upon any Directors or employees of the AGENCY, the Engineer, or Consulting Engineers and their employees or volunteers.

8. CONTRACTOR'S INSURANCE

8.1 GENERAL

The Contractor shall not commence or continue to perform any work unless he, at his own expense, has in full force and effect all required insurance. The Contractor shall not permit any subcontractor to perform work on this project unless all of the required insurance has been complied with by such subcontractor.

The types of insurance the Contractor shall obtain and maintain are Workers' Compensation and Employers' Liability Insurance, General and Automobile Liability Insurance, Builders' Risk "All Risk" and (if so determined by the AGENCY) at the time of award of the Contract, Earthquake and Flood Insurance, all as set forth herein.

Workers' Compensation and Employers' Liability Insurance and Liability Insurance shall be maintained in effect for the full guarantee period.

Insurers must be authorized to do business and have an agent for service of process in California and must have at least a "B+ VIII" rating in accordance with the most current Best's Rating Guide.

Upon the AGENCY'S request, the Contractor shall furnish to the AGENCY one (1) copy of each policy certified by an authorized representative of the insurer. Contractor shall provide the AGENCY with an updated certificate of insurance for any change to its insurance coverage to include changes in insurers, policy limits, etc. Failure to provide updated certificates can cause a temporary stop in the Project being ordered by the AGENCY, until such time as the AGENCY has accepted a revised/new certificate of insurance.

Contractor shall give written notice to the Engineer by certified mail at least thirty (30) calendar days

prior to termination, cancellation, or reduction of coverage of any policy required by this section.

The Contractor waives any right of recovery against the AGENCY, its Engineer, Directors, employees, or Consulting Engineers, for any loss or damage to the Contractor's construction equipment or tools.

The requirements as to the types, limits, and the AGENCY'S approval of insurance coverage to be maintained by the Contractor are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under the Contract.

In addition to any other remedy the AGENCY may have, if the Contractor or any of the subcontractors fail to maintain the insurance coverage as required in this section, the AGENCY may obtain such insurance coverage as is not being maintained, in the form and amount substantially the same as required herein, and the AGENCY may deduct the cost of such insurance from any amounts due or which may become due the Contractor under this Contract.

Any deductibles or self-insured retentions other than those expressly allowed by this section or subsections must be declared to and approved by the AGENCY. At the option of the Engineer, either the insurer shall reduce or eliminate such deductible or self-insured retentions as respects to the AGENCY, its Engineer, Directors, employees and Consulting Engineers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigation, claim administration and defense expense.

8.2 INSURANCE SUBMITTALS

As evidence of specified insurance coverage, the Contractor shall provide certificates of insurance and endorsements.

The Contractor shall provide and maintain insurance and indemnification as described in this section. Neither the Contractor nor any subcontractors shall commence any work until all required insurance has been obtained, at their own expense, and such insurance has been approved by the Engineer.

Any insurance bearing on adequacy of performance shall be maintained after completion of the Project for the full guarantee period.

8.3 CONTRACTOR'S LIABILITY ENDORSEMENT

8.3.1 INTENTIONALLY OMITTED

8.3.2 INTENTIONALLY OMITTED

8.3.3 Workers' Compensation and Employer's Liability Insurance - The Contractor shall procure and maintain insurance to protect the Contractor from all claims under Worker's Compensation Act and Employer's Liability. The Contractor shall maintain limits no less than the following:

- A. Workers' Compensation - Statutory
- B. Employer's Liability:
- C. Each Accident - One Million Dollars (\$1,000,000)
- D. Disease-Policy Limit - One Million Dollars (\$1,000,000)
- E. Disease-Employee Limit - One Million Dollars (\$1,000,000)

8.3.4 Commercial General Liability Insurance - The insurance shall include, but shall not be limited to, protection against claims arising from death, bodily or personal injury, or damage to property resulting from actions, failures to act, operations or equipment of the Contractor or his/her employees, consultants, or subcontractors. Coverage shall be at least as broad as ISO "occurrence" form, number CG 0001 (Edition 10/93) covering general liability.

The limits of liability shall be not less than one million dollars (\$1,000,000) each occurrence and two million dollars (\$2,000,000) general aggregate. Coverage may be provided either in a primary policy, or in a combination of primary and umbrella or excess policies. The insurance may have a deductible or self-insured retention not to exceed fifty thousand dollars (\$50,000).

The Commercial General Liability insurance coverage shall also include the following:

Coverage, without limitation, for property damage arising out of explosion, collapse or underground damage, commonly referred to by insurers as the explosion, collapse and underground property damage hazards.

Provision or endorsement stating that the General Aggregate Limit shall apply separately to the Project covered by this Contract.

Provision or endorsement naming the AGENCY, its Engineer, Directors, employees, volunteers and Consulting Engineers as additional insureds in regards to liability arising out of the performance of any work under the Contract and providing that such insurance is primary insurance as respects the interest of the AGENCY and that any other insurance maintained by the AGENCY is excess and not contributing insurance with the insurance required hereunder. A copy of the additional insured endorsement is required by the AGENCY prior to commencement of work.

8.3.5 Automobile Liability Insurance - The insurance shall include, but shall not be limited to, protection against claims arising from death, bodily injury, or damage to property resulting from ownership, operation, maintenance or use of automobiles by the Contractor or his/her employees, consultants, or subcontractors. Coverage shall be at least as broad as ISO form number CA 0001 (Edition 12/93) covering automobile liability, symbol 1 "any auto."

The limits of liability shall be not less than two million dollars (\$2,000,000) each accident. Coverage may be provided either in a primary policy, or in a combination of primary and umbrella or excess policies.

The Automobile Liability insurance coverage shall be primary insurance as respects the interest of the AGENCY and that any other insurance maintained by the AGENCY is excess and not contributing insurance with the insurance required hereunder.

8.3.6 Builder's Risk Insurance - Contractor shall purchase and maintain in force builder's risk insurance on the full value of the Contract. Such insurance shall be written on a completed value form and in an amount equal to the initial Contract sum subject to subsequent modifications of the Contract sum. The insurance shall apply on a replacement cost basis. The policy may have a deductible or self-insured retention not to exceed one hundred thousand dollars (\$100,000), except for the peril of earthquake, which may have a deductible not to exceed five percent (5%) of the Contract amount.

The builder's risk coverage shall extend to full replacement costs without any deduction for depreciation.

The builder's risk insurance shall name as insured the AGENCY, Contractor and all subcontractors and sub-subcontractors in the work. The insurance policy shall contain a provision that the insurance will not be cancelled or allowed to expire until at least thirty (30) days' prior written notice has been given to the AGENCY. The insurance policy shall also contain a provision stating that it is primary insurance, as respects the interests of the AGENCY, and that any insurance maintained by the AGENCY shall be excess of, and shall not contribute with it.

The builder's risk insurance shall cover the entire work included in the Project including expenses made necessary by an insured loss. Insured property shall include portions of the work located away from the site but intended for use in the Project, and shall also cover portions of the work in transit. The policy shall

include as insured property all materials stored onsite but not yet incorporated into the Project, and shall also include scaffolding, falsework, and temporary buildings located at the site. The policy shall cover the cost of removing debris, including demolition as may be made legally necessary by the operation of any law, ordinance, or regulation by endorsement if necessary, the builder's risk insurance shall cover actual costs incurred by the AGENCY in providing inspection services for repairs to the work due to covered losses not to exceed a five-hundred thousand dollar (\$500,000) sublimit, Contractor shall be liable for all AGENCY inspection/reinspection costs.

The builder's risk insurance shall be written to cover all risks of physical loss except those specifically excluded in the policy, and shall insure at least against the perils of fire and extended coverage, theft, vandalism, malicious mischief, rain, hail, wind and collapse.

Any deductible applicable to the builder's risk insurance shall be the responsibility of the Contractor in the event of a loss.

The builder's risk insurance shall be maintained in effect, unless otherwise provided for in the Contract Documents, until the Project is accepted as completed by the AGENCY Board of Directors. The policy shall not contain any exclusion of coverage for any period during which Project systems are being tested or during which the Project is being partially occupied by the AGENCY.

In the event of a covered loss, proceeds of builder's risk insurance shall be applied first to reimburse actual costs of demolition, debris removal, reconstruction, and repair or replacement incurred in the discharge of the Contractor's obligations of repair or replacement under the Contract Documents. The AGENCY shall have no liability for such costs. Insurance proceeds shall be deposited in a separate account in a local bank satisfactory to the AGENCY and shall be withdrawn only with the AGENCY'S written approval to reimburse such actual costs as the builder's risk carrier has agreed to reimburse. The AGENCY shall have no liability for failure of builder's risk carrier to pay for particular cost of repairs. This article shall not qualify or modify the Contractor's responsibility for the work under Section 7.8.

Before the commencement of work, Contractor shall provide the AGENCY with a Certificate of Insurance for the builder's risk policy including all deductibles and sublimits. The policy shall be supplied to the AGENCY for review upon request.

If the AGENCY is damaged by the failure of Contractor to maintain the required insurance, the Contractor shall bear all reasonable costs properly attributable to that failure.

In the event of termination of the Contractor for default under Section 4.11.2, the Contractor shall forfeit all rights to builder's risk insurance proceeds and the AGENCY may expend such proceeds to complete the Project as if they were unpaid Contract monies.

8.4 WAIVER OF SUBROGATION

Contractor waives all rights against the AGENCY and any of their officers, the Engineer, Consulting Engineer, directors, agents, and employees, for recovery for damages caused by fire and other perils to the extent covered by builder's risk insurance, or any other property insurance applicable to the work or the Project.

8.5 CONTRACTOR'S LIABILITY NOT LIMITED BY INSURANCE

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the AGENCY, the Engineer, the Consulting Engineers, and their consultants, and each of their directors, volunteers, officers, and employees from and against all claims, damages, losses, expenses, and other costs, including costs of defense and attorneys' fees, arising out of or resulting from or in connection with the performance of the work,

both on and off the job site, provided that any of the foregoing is 1) attributable to personal injury, bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself), including the loss of use resulting therefrom; and, 2) caused in whole or in part by an act or omission of the Contractor, any subcontractor, any supplier, anyone directly or indirectly employed by any of them or anyone for whose acts or omissions any of them may be liable, regardless of whether or not caused in part by any act or omission (active, passive, or comparative negligence included, excepting the active negligence, sole negligence or willful misconduct of the AGENCY), of a party indemnified hereunder. The Contractor's obligation to indemnify shall not be restricted to insurance proceeds, if any received by the AGENCY, its directors, officers, volunteers, or employees.

The obligations of the Contractor under the first and fourth paragraphs of this Section 8.5 shall not extend to the liability of the Engineer, the Consulting Engineers, and their consultants, and each of their directors, officers, employees, and volunteers arising out of or resulting from or in connection with the preparation or approval of maps, Drawings, opinions, reports, surveys, designs or Specifications, providing that the foregoing was the sole and exclusive cause of the loss, damage or injury.

The Contractor shall also indemnify and hold harmless the AGENCY, the Engineer, the Consulting Engineers, and their consultants, and each of their directors, officers, volunteers and employees from and against all losses, expenses, damages (including damages to the work itself), attorneys' fees, and other costs, including all costs of defense, which any of them may incur with respect to the failure, neglect, or refusal of Contractor to faithfully perform the work and all of the Contractor's obligations under the Contract. Such costs, expenses, and damages shall include all costs, including attorneys' fees, incurred by the indemnified parties in any lawsuit to which they are a party.

The Contractor shall assume the defense of, and indemnify and save harmless, the AGENCY, the Engineer, the Consulting Engineers, and their consultants, and each of their Directors, employees, and volunteers from all claims, costs, losses, damages and expenses, including attorneys' fees of any kind arising from the performance of this Contract, including claims for personal injury or death, claims for damage to property, and claims for loss of business. The Contractor agrees to require that in any agreement and/or subcontract entered into with any one for the performance of work under this Contract, that all work will be done pursuant to the AGENCY'S Improvement Standards, Technical Specifications and Drawings, and that the Contractor will indemnify and save harmless the AGENCY, the Engineer, the Consulting Engineers, and their consultants, and each of their Directors, employees, and volunteers from all claims of any kind arising from any and all Contractors' and subcontractors' performance of this Contract, including claims for personal injury and death, claims for damages to property and claims for loss of business.

8.6 COMPLIANCE WITH STATE REQUIREMENTS FOR USE OF SUBCONTRACTORS

The Contractor's attention is directed to Section 6109 of the Public Contract Code, which prohibits a contractor or a subcontractor who is ineligible to bid or work on, or be awarded, a public works project pursuant to Section 1777.1 or 1777.7 of the Labor Code to bid on, be awarded or perform work as a subcontractor on a public works project. This section also prohibits a contractor from performing work on this Contract with a subcontractor who is ineligible to perform work on this Contract pursuant to the above Labor Code sections. The Contractor shall comply with all of the provisions of Section 6109 of the Labor Code.

9. PROSECUTION AND PROGRESS

9.1 SUBCONTRACTING

The Contractor shall give personal attention to the fulfillment of the Contract and shall keep the work under his/her control. The Contractor shall perform with his/her own organization and with the assistance of workers under his/her immediate superintendence, work of a value of not less than fifty percent (50%) of the value of all work embraced in the Contract. The value of the work subcontracted shall be determined by summing all of the percentages identified for listed subcontractors on the Proposal Form. If the sum of such

percentages exceeds fifty percent (50%), the AGENCY may treat the bid as nonresponsive and reject it on that basis. When a portion of the work which has been subcontracted by the Contractor is not being prosecuted in a manner satisfactory to the AGENCY, the subcontractor shall be removed immediately on the request of the Engineer and shall not again be employed on the work. No changes will be allowed from the approved subcontractor list without approval of the Engineer.

The Contractor agrees to be as fully responsible to the AGENCY for the acts and omissions of his/her subcontractors at all levels and for persons either directly or indirectly employed by them, as for the acts and omissions of persons directly employed by him/her. Nothing contained in the Contract Documents shall create any contractual rights for any subcontractor against the AGENCY. The Contractor shall cause every subcontractor to be bound by the terms of the Contract Documents.

9.2 ASSIGNMENT

The performance of the Contract may not be assigned directly or indirectly except upon the written consent of the AGENCY. Consent will not be given to any proposed assignment which would relieve the original Contractor or his/her Surety of their responsibilities under the Contract, nor will the AGENCY consent to any assignment of a part of the work under the Contract.

The Contract may assign monies due or to become due to the Contractor under the Contract and such assignment will be recognized by the AGENCY, if given proper notice thereof, to the extent permitted by law, but any assignment of monies shall be subject to all proper off-sets in favor of the AGENCY and to all deductions provided for in the Contract and particularly all money withheld, whether assigned or not, shall be subject to being used by the AGENCY for the completion of the work in the event that the Contractor should be in default.

9.3 DELAYS AND TIME EXTENSION

If the Contractor is delayed in the progress of the work by any act or neglect of the AGENCY or the Engineer, or by any separate contractor employed by the AGENCY, or by strikes, lockouts, fire, acts of God, unusual weather conditions, or unavoidable casualties, the Contractor shall, within twenty-four (24) hours of the start of the occurrence, give written notice to the AGENCY of the cause of the potential delay and an estimate of the possible time extension involved. Within seven (7) days after the cause of delay has been remedied, the Contractor shall give notice to the AGENCY of any actual time extension requested as a result of the aforementioned occurrence.

For purposes of this Contract, the Contractor shall be entitled to a time extension to the Substantial Completion Milestones listed on the construction schedule as required by Section 1312, titled, "Construction Schedule (Bar Charts)" for weather delays only when the Contractor's critical path activity, as shown on its most recent schedule update, is delayed by unusual weather for over four (4) hours in a given work day. Unusual weather shall be deemed to include only days of rainfall in excess of 0.10 inches.

Rainfall shall be as measured at Bakersfield, California and reported by the Western Regional Climate Center website, www.wrcc.dri.edu. No extra payment to the Contractor will be made for delays caused by unusual weather conditions. Contractor shall note that no time extensions to Operational Milestones as defined in Section 1312, titled, "Construction Schedules (Bar Charts)" shall be allowed for weather events.

Delays in delivery of equipment or material purchased by the Contractor or his/her subcontractors shall not be considered as a just cause for delay. The Contractor shall be fully responsible for the timely ordering, scheduling, expediting, delivery, and installation of all equipment and materials. The AGENCY does not warrant the availability of "sole source" items or the timely performance of sole source suppliers and subcontractors and the Contractor's remedies for delay or other breach by such entities shall solely be against them and not against the AGENCY.

Other time extension claims by the Contractor must be within ten calendar days after occurrence of the event giving rise to such claim or within ten calendar days after the claimant first recognizes the condition giving rise to the Claim, whichever is later. Claims for time extension must be made by written notice. An additional claim made after the initial Claim has been implemented by contract change order will not be considered.

Any delay claim shall be accompanied by a critical path method (CPM) schedule showing that the delayed task was on the Project's critical path at the time of the delay. Project schedule shall be in the form detailed in Section 1312 titled, "Construction Schedules (Bar Charts)."

9.4 TEMPORARY SUSPENSION OF WORK

The Engineer shall have the authority to suspend the work wholly, or in part, for such period deemed necessary due to conditions considered unfavorable for the suitable prosecution of the work, or for such time deemed necessary due to the failure on the part of the Contractor to carry out orders given or to perform the work in accordance with these Plans and Specifications. The Contractor shall immediately comply with the written order of the Engineer to suspend the work wholly or in part. The work shall be resumed when conditions are favorable and/or methods are corrected, as ordered or approved in writing by the Engineer. The period of suspension will be included in determining the time for completion of work. In the event of a suspension of work under any of the conditions previously set forth, such suspension of work shall not relieve the Contractor of his/her responsibilities as set forth under the sub-section titled "Legal Relations and Responsibility" in these General Provisions.

9.5 PROGRESS SCHEDULE AND ORDER OF COMPLETION

To ensure completion of the work within the time limit specified, and to assist the AGENCY in the scheduling of other work, Contractor shall submit to the AGENCY within ten (10) calendar days after he/she receives the Notice to Proceed a detailed schedule showing the proposed dates of beginning and completion of all significant items of work under the Contract. If the actual progress of the work varies materially from the proposed program, or if the Contractor proposes to change the program for any reason, he/she shall submit to the AGENCY the revised construction program which he/she proposes to follow. The proposed original and revised program shall be adequate, in the opinion of the AGENCY, to meet the requirements for completion of the work as herein set forth. If, in the opinion of the AGENCY, the Contractor's proposed program or the actual progress of the work is insufficient to meet the specified requirements, the Contractor shall take such steps as are necessary to accomplish the required progress and completion.

When in the judgment of the AGENCY it is necessary to accelerate any part of the work ahead of schedule, the Contractor shall, when directed, concentrate his/her efforts on such part of the work.

9.6 FAILURE TO COMPLETE THE WORK IN THE TIME AGREED UPON - LIQUIDATED DAMAGES

The Contractor agrees to provide all materials, labor and equipment for the project stated in Section A - Technical Specifications. It is further stipulated and agreed that if the work contracted for is not completed within the time provided, the AGENCY will be actually and seriously damaged in the conduct of its affairs, and that from the nature of the circumstances, it would be impractical and extremely difficult to fix or compute the actual damage which may be sustained by the AGENCY in such event, and it is therefore stipulated and agreed that upon the failure of the Contractor to complete the work contracted for within the time provided, the Contractor shall pay the AGENCY the sum specified in Section 00810 for each and every day after the number of specified days from and after the issuance of the Notice to Proceed until the completion of said work and the acceptance thereof by the AGENCY, and that all sums due and payable by the Contractor to the AGENCY shall be deemed to be liquidated damages for such period and not a penalty, and may be offset by the AGENCY against any monies due the Contractor hereunder.

The work contracted for shall be deemed to be completed within the meaning of this Contract when

same has been actually completed in accordance with the Plans and Specifications thereto and to the satisfaction of the AGENCY. Nothing in this section shall prohibit the AGENCY from granting to the Contractor an extension of time beyond the fixed date of completion and waiving of the damages specified in Section 00810.

9.7 PROJECT QUALITY CONTROL

9.7.1 Test Reports And Certifications - Where certifications or mill-test reports are required, the Contractor shall submit three (3) complete, certified copies. Certifications shall show chemical composition, mechanical properties, or other characteristics of the materials to be used in the work. Material specified by a referenced standard shall be certifiable by the mill or manufacturer under that standard. The testing, analysis, and certification shall be the responsibility of the Contractor.

9.7.2 Notices Of Fabrication - The Contractor shall submit a separate notice of fabrication for each fabricated article and material. For articles and materials fabricated outside Kern County, the Contractor shall submit the notice fourteen (14) days before starting fabrication. The Contractor shall provide a certified third party inspection firm for all work performed outside Kern County. For articles and materials fabricated within Kern County, the Contractor shall submit the notice five (5) days before starting fabrication.

9.7.3 Responsibilities - The Contractor shall be responsible for full compliance with every requirement of the Contract Documents and shall ensure that the work is in full accordance with these requirements. At all times, the Contractor's work will be subject to rigid inspection by the Engineer. Whether discovered by the Contractor or the Engineer, nonconforming work shall be corrected or replaced by the Contractor. For convenience, materials or equipment to be incorporated in the work may be designated in the Specifications by a trade name or the name of a manufacturer and the manufacturer's catalog item number information. Materials, articles, or equipment, even if supplied by a manufacturer designated in the Specifications, shall be accepted only if the items meet all other specification requirements.

The Contractor shall furnish all tools, equipment, materials, supplies, and manufactured articles necessary or required for the performance and completion of the work included in the Contract, except for materials and equipment specified to be furnished by the AGENCY. The materials, articles, and equipment provided for permanent installation in the work shall be new and shall be in accordance with these Specifications.

The Contractor shall perform quality control on suppliers, manufacturers, products, services, site conditions, and workmanship to ensure that work conforms to the Contract Documents. The Contractor shall be prepared to document its quality control activities. The Contractor shall require and ensure conformance with specified standards as a minimum quality for the work. When more stringent tolerances, codes, or specified requirements are required by a particular manufacturer or a particular item of work, the higher standards or more precise workmanship shall be provided.

The Engineer's inspections and tests are for the sole benefit of the AGENCY and shall not:

- A. Relieve the Contractor of responsibility for providing adequate quality control measures.
- B. Relieve the Contractor of responsibility for damage to or loss of the material before acceptance.
- C. Constitute or imply acceptance.
- D. Affect the continuing rights of the AGENCY after acceptance of the completed work.

The Contractor shall be responsible for adjustments, corrections, or repairs found necessary after the delivery or installation of materials and articles. Unidentified materials shall not be used in the work, including work at fabrication plants.

Sequencing and Scheduling of Inspections and Tests - The Contractor shall furnish and prepare the

required samples and test specimens ready for testing in time for the necessary tests and analysis. Where the Specifications require work to be tested or approved, it shall be tested only in the presence of the Engineer.

The Engineer shall be given timely notice of the Contractor's readiness for inspection and test. The length of advance notice shall be appropriate for the complexity of the inspection or test, the availability of the Engineer's staff, and the location of the inspection or test, but in no case shall less than twenty-four (24) hours' advance notice be given.

9.7.4 Testing - Materials and articles that are to be included in the works shall be subject to testing for conformance with the Specifications and Drawings. When not otherwise specified, sampling and testing shall be in accordance with the methods prescribed in the current standards of ASTM applicable to the class and nature of the articles or materials considered. However, the Engineer will have the right to use any generally accepted method of testing that will ensure that the quality of materials, articles, or work is in full accord with the Specifications and Drawings. The Engineer will have the right to select, test, and analyze, at the expense of the AGENCY, additional test specimens of the materials to be used. Results of these tests and analyses will be considered with the results of other tests or analyses, whether performed by the Engineer or the Contractor, to determine compliance with the applicable Specifications for the materials.

9.7.5 Inspection By The Engineer - Materials and articles that are to be included in the work shall be subject to rigid inspection by the Engineer for conformance with the Specifications and Drawings. The Contractor shall plan for the inspections to be continuous, repetitive, and detailed. Orders for materials, articles, and equipment shall note that the articles, materials, and equipment are subject to inspection and acceptance by the AGENCY, both during manufacture or fabrication and after delivery to the site.

When practicable and convenient for the Engineer, inspection will be made during the manufacture of the articles and equipment. The location, alignment, grade, plumb, and other physical characteristics of formwork for concrete, items to be embedded in concrete, and permanent improvements shall be subject to rigid survey verification. Materials or articles shall not be incorporated in the work until they have been inspected by the Engineer. After testing, work shall be covered or backfilled only with the approval of the Engineer.

The duties of the Engineer in conducting review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's work methods, equipment, bracing, scaffolding or safety measures in, on, or near the construction site.

9.7.6 Facilities For Inspection And Testing - The Contractor shall furnish the facilities, utilities, and assistance necessary for the safe and convenient performance of inspections and tests required by the Specifications or by the Engineer. The Contractor shall provide adequate lighting, access, and ventilation for a safe working environment for inspections and tests. The Contractor shall cooperate with the Engineer's staff in the performance of their respective duties and shall provide qualified personnel to assist with the performance of tests and inspections by them. When the Specifications require tests or inspections to be performed by the Contractor, the Contractor shall provide qualified, licensed, personnel to perform them.

9.7.7 Rejection Of Work - The Engineer will have the right, at all times and in all places, to reject articles or materials to be furnished for the Project that fail to meet the requirements of these Specifications. This shall be regardless of whether the defects in these articles or materials are detected at the point of manufacture or after completion of the work at the site. The Engineer will be the sole judge as to the acceptable quality of materials, articles, and work. However, where the Engineer, through an oversight or otherwise, accepts material, articles, or work that is defective or that is contrary to the Specifications, the material, article, or work, no matter in what stage or condition of manufacture, delivery, or erection, may be rejected by the Engineer.

Promptly after notification of rejection by the Engineer, the Contractor shall remove rejected portions

or items of materials, articles, or work to a satisfactory distance from the vicinity of accepted items and shall replace the rejected materials, etc., with items acceptable to the Engineer.

9.7.8 Final Inspections And Acceptance - Final inspections for acceptance of materials, articles, equipment, and work will be made at the completion of all Contract work. A minimum of ten (10) working days prior to the estimated completion of the work, the Contractor shall notify the Engineer in writing of the pending completion of the entire work or an agreed portion thereof. The Contractor shall include with the notice a complete list of work items remaining to be completed. On or about the Contractor's estimated completion date, the Engineer will make a thorough inspection of the entire work. Defects or deficiencies noted during this inspection will be reported to the Contractor in writing. The Contractor shall notify the Engineer in writing when all items on the list are corrected. Shortly thereafter, the Engineer will make a thorough final inspection of the entire work.

If the Engineer determines the work to be complete, it will be accepted. If defects or deficiencies are noted during this inspection, they will be reported in writing to the Contractor. When the Contractor notifies the Engineer of the correction of these items, another final inspection will be scheduled.

9.8 SAFETY

The Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours and/or days. The Contractor shall have in full force and effect an Injury and Illness Prevention Program (IIPP) covering all work of the Contractor and subcontractor employees at the site.

Safety provisions shall conform to all applicable federal, state, county, and local laws, ordinances, and to other rules of law applicable to the work. Where any of these are in conflict, the more stringent requirement shall be followed.

The Contractor shall maintain at the job office and/or other well-known place on the job site, all articles necessary for giving first-aid to the injured, and shall establish the procedure for the immediate removal, to the hospital or a doctor's care, of persons who may be injured on the job site.

The right of the Engineer and/or AGENCY Inspector to conduct construction review of the Contractor's performance is not intended to and will not include a review of the adequacy of the Contractor's safety measures in, on, or near the construction site.

Attention is directed to Section 832 of the Civil Code of the State of California relating to lateral and adjacent support, and the Contractor shall comply with this law.

9.8.1 Valley Fever - Notices to Employees - A special biological problem of the Project Site is presence of tiny organisms living in the soil which can cause valley fever in man. As is typical of many desert areas in southwestern United States, valley fever is endemic to Kern County. Although everyone living in the valley has some contact with the disease-causing organisms, the illness is especially hazardous to those whose work brings them into close contact with the soil, as for example agricultural and construction workers.

9.8.2 Ventilation - Ventilation and control of oxygen-deficient atmospheres, dusts, fumes, mists, vapors, and gases shall be in accordance with the CSO and all other applicable laws, ordinances and regulations.

9.8.3 Trench Safety - In accordance with Section 6705 of the State Labor Code, the Contractor shall submit to the AGENCY specific plans to show details of provisions for worker protection from caving ground. This trench safety plan shall be submitted to and approved by the AGENCY prior to starting excavation for any trench or trenches five (5) feet or more in depth. The trench safety plan working Drawings shall be detailed

plans showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground. If such plan varies from the shoring system standards established by the Construction Safety Orders of the California Division of Industrial Safety or the Federal Safety Standards of the Department of Health, Education and Welfare, the plan shall be prepared by a registered civil or structural engineer. As a part of the plan, a note shall be included stating that the registered civil or structural engineer certifies that the plan complies with the CAL-OSHA Construction Safety Orders, or that the registered civil or structural engineer certifies that the plan is not less effective than the shoring, bracing, sloping, or other provisions of the Safety Orders. In no event shall the Contractor use a shoring, sloping, or protective system less effective than that required by said Construction Safety Orders, or less effective than that required by said Federal Safety Standards. Submission of this plan in no way relieves the Contractor from the requirement to maintain safety in all areas. If excavation or trench work requiring a CAL-OSHA permit are to be undertaken, the Contractor shall submit a copy of his/her permit with the excavation/trench work safety plan to the AGENCY before work begins.

The AGENCY or their consultants may have made investigations of subsurface conditions in areas where the work is to be performed. If so, these investigations are identified in the Special Provisions, and the records of such investigations are available for inspection at the Engineering Office. The detailed plan showing the design of shoring, which the Contractor is required to submit to the AGENCY for acceptance prior to excavation, shall not be accepted by the AGENCY if the plan is based on subsurface conditions which are more favorable than those revealed by the investigations made by the AGENCY or their consultants; nor will the plan be accepted if it is based on soils-related design criteria which is less restrictive than the criteria set forth in the report on the aforesaid investigations of subsurface conditions.

The detailed plan showing the design of shoring shall include surcharge loads for nearby embankments and structures, for spoil banks, and for construction equipment and other construction loadings. The plan shall indicate for all trench conditions the minimum horizontal distances from the side of the trench at its top to the near side of the surcharge loads. Nothing contained herein shall be construed as relieving the Contractor of the full responsibility for providing shoring, bracing, sloping, or other provisions which are adequate for worker protection.

Inspection or testing by the AGENCY or any agent of the AGENCY is not intended to include review of the adequacy of the Contractor's work methods, equipment, bracing or scaffolding or safety measures, in, on, or near the construction site, and shall not be construed as supervision of the actual construction, nor make the AGENCY responsible for providing a safe place for the performance of work by the Contractor, subcontractors, or suppliers; or for access, visits, use, work, travel or occupancy by any person.

If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone to the AGENCY. In addition, the Contractor must promptly report in writing to the Engineer all accidents whatsoever arising out of, or in connection with, the performance of the work whether on, or adjacent to, the site, giving full details and statements of witnesses.

If any claim is made by anyone against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Engineer, giving full details of the claim.

Whenever abrasive blasting is to be performed for the removal of painted coating systems, the blast media shall be certified by CARB for unconfined blasting pursuant to CCR Title 17.

9.8.4 Facility Startup - The Contractor shall commission all systems and equipment to verify performance, function, and correct operation by performing procedures to activate, startup, adjust, test, and demonstrate that the work is in operating order in accordance with these general requirements of this section and the detailed requirements of the technical sections under the system or equipment specified.

To ensure that the work is ready for full-time operation, the procedures shall include verification, balancing, calibration, witness testing, documentation, inspection by equipment manufacturers and operator

training where specified. The Contractor shall notify the Engineer five (5) days prior to starting each system or piece of equipment. During the startup period, the Contractor shall coordinate the operation of the facilities with Engineer, subcontractors, AGENCY'S operators, and manufacturer's representatives.

The Contractor shall furnish test equipment, measuring devices and supplies required to conduct tests. The Contractor shall maintain the equipment until acceptance, provide all lubricants, chemicals, and electricity necessary until acceptance, furnish all expendable supplies, gas, water, etc., required for startup, demonstration and testing, and dispose of all waste or used supplies, water, etc.

9.9 CONTRACT CLOSEOUT

9.9.1 Final Cleanup - Prior to final inspection, clean the entire construction area and all other areas affected by the performance of work under this Contract. Clean up work area using personnel specializing in and skilled in cleaning and maintenance work. The Contractor shall repair work using personnel skilled in executing the type of work being repaired. All work shall be executed to the highest trade standards applicable to that type of work.

The Contractor shall perform the following work prior to final inspection:

- A. The Contractor shall remove all temporary construction, signs, tools, equipment, excess material and debris.
- B. Remove all lumps, splatters, spots and stains caused by paint, adhesive, asphalt, concrete, mortar, sealant or other foreign material from exposed or finished surfaces. Remove all temporary labels.
- C. Repair, patch or replace new or existing work including pavement, sidewalks, curbs, gutters, catch basins, gratings, manholes, covers, landscaping, plant materials and other items that have been damaged, broken, cracked or chipped as a result of performing this work.
- D. Sweep clean and wash down all exterior pavement.
- E. Remove all hazardous material and material that may cause sediment in drainage systems prior to wash down.
- F. Remove all grease and oil stains on pavement caused by Contractor's equipment.

9.9.2 Contractor's Action List of Items to Be Corrected and/or Completed - During construction, the Contractor shall maintain an action list of items to be corrected and/or completed. The Contractor shall regularly add items and update the list as information becomes available or as requested by the Engineer. The Contractor shall deliver a current copy of the list to the Engineer at each progress meeting.

9.9.3 Semifinal Inspection/Substantial Completion - When the Contractor considers the work nearly complete, the Contractor shall review the Contract Documents, inspect the work, and use the Contractor's action list to prepare a Contractor's punch list of all deficient or uncompleted items. The Contractor shall complete or correct items on the punch list. When the work is substantially complete, the Contractor shall notify the Engineer in writing that the Contractor has reviewed the Contract Documents, inspected the work and believes that the work is substantially complete and ready for semifinal inspection.

On receipt of the Contractor's punch list and notice that the work is ready for semifinal inspection; the Engineer will inspect the work. The Engineer may add additional items to the Contractor's punch list; may find that the work is not ready for inspection; is ready for inspection but not substantially complete; or that the work is substantially complete. When the Engineer finds the work is substantially complete, it will prepare a final punch list and a Notice of Substantial Completion which will state the date of substantial completion and the time agreed to by the AGENCY and the Contractor (not to exceed thirty [30] days) in which the work shall be fully complete and ready for final inspection.

9.9.4 Final Inspection, Final Completion And Final Payment - When the Contractor has completed or corrected all the items on the Engineer's final punch list, the Contractor shall give the Engineer written

notice that the work is ready for final inspection. When the Engineer finds the work acceptable and fully complete in accordance with the Contract Documents, and upon receipt of a final Application for Payment and all final submittals, the Engineer will recommend that the AGENCY issue a Notice of Final Completion, make final payment and accept the work stating that to the best of the Engineer's knowledge, information and belief, and on the basis of the Engineer's observations and inspection, the work has been fully completed in accordance with the terms and conditions of the Contract Documents.

9.9.5 Final Submittals include:

- A. Operation and Maintenance Manuals and Parts Lists
- B. Record Drawings
- C. Extra Materials
- D. Special Guarantees
- E. Insurance Certificate showing required continuation of coverage beyond Final Payment
- F. Release of Liens
- G. Waiver of Claims by Contractor
- H. And any other submittals required by the Contract Documents and not previously received

The AGENCY will record the Notice of Final Completion at the County Records Office. The AGENCY will make Final Payment to the Contractor thirty-five (35) days after recording the Notice of Final Completion.

9.9.6 Record Drawings - The Contractor shall maintain on the jobsite, a complete set of Contract Documents and a complete file of all addenda, Contract modifications and favorably reviewed submittals. The Contractor shall prepare a set of Record Drawings concurrently with the construction of the Work and in accordance with the following:

- A. Show the invert elevation of all gravity piping and the top of pipe, top of conduit or top of protective concrete encasement for other utilities. Elevations shall be related to a permanent visible elevation bench mark set at the site by the Contractor.
- B. Show the horizontal location of underground utilities measured from permanent visible physical features such as face of building, face of tank, or centerline of manhole.
- C. Comply with detailed requirements in technical specification sections describing the type of information required on Record Drawings. The Contractor's copy of Contract Documents, Contract modifications and Record Drawings shall be available to the Engineer for weekly verification that the records are being currently updated.
- D. The Contractor shall submit Record Drawings and obtain acceptance prior to completion.

9.9.7 Extra Materials - Deliver specified extra materials and parts to AGENCY. Itemize all items on a transmittal letter in duplicate and obtain signature of receiving party. Submit copies of signed transmittals for all specified extra materials and parts prior to completion.

9.9.8 Twelve-Month Inspection - Unless specified otherwise in the Technical Specifications, approximately thirty (30) days prior to the expiration of the one (1)-year guarantee period, the Contractor shall tour the Project with the Engineer and/or the AGENCY to prepare a list of corrective work required under the twelve (12)-month guarantee. The Contractor shall correct all items found to be defective within twenty (20) days of receipt of the list of items to be corrected.

9.10 GUARANTEE AND WARRANTY

Guarantee And Warranty Requirements - The Contractor shall warrant and guarantee that the entire work constructed under the Contract fully meets all requirements of the Contract. The Contractor shall further warrant and guarantee that all work, including materials, articles, and equipment furnished by the Contractor under the Contract, shall be free of deficiencies and defects for a period of one (1) year after the date of final

acceptance of the work unless specified otherwise.

The Contractor shall further warrant and guarantee to make or have made at Contractor's expense repairs, adjustments, replacements, or other corrective work necessary to restore or bring into full compliance with the requirements of the Specifications any part of the work which during the guarantee period is found to be deficient with respect to any provision of the Specifications.

If a defect or deficiency is of a kind which in the opinion of the Engineer requires immediate correction to avoid injury to the AGENCY, the Engineer may make or have made such repairs, adjustments, replacements, or other corrective work and the Contractor agrees to promptly pay the AGENCY invoice for the corrective work.

If a defect or deficiency is of a kind which in the opinion of the Engineer requires immediate correction but the Contractor has failed to undertake corrective work within three (3) working days of receipt of written notice from the Engineer, the Engineer may make or have made such repairs, adjustments, replacements, or other corrective work and the Contractor agrees to promptly pay the AGENCY invoice for the corrective work.

The AGENCY will have the right to use deficient material and equipment until it can be taken out of service without injury to the AGENCY. The guarantees and agreements set forth herein shall be secured by the "Faithful Performance Bond" furnished by the Contractor to the AGENCY at the time of execution of the Contract, which bond shall be deemed to continue in effect during the period of guarantee.

This guarantee is not the exclusive remedy for the AGENCY in the event of any breach of this Contract.

10. MEASUREMENT AND PAYMENT

10.1 MEASUREMENT OF QUANTITIES

Where the Contract provides for payment on a lump sum price basis, no measurement of quantity will be made. Where the Contract provides for payment on a unit price basis, the quantities of work performed will be computed by the Engineer on the basis of measurements taken by the Engineer, and these measurements shall be final and binding.

All quantities of work computed under the Contract shall be based upon measurements by the Engineer according to United States Measurements and Weights.

10.2 SCOPE OF PAYMENT

The Contractor shall accept the compensation as provided in full payment for furnishing all materials, labor, tools, and equipment necessary to the completed work; for performing all work contemplated and embraced under the Contract; for loss or damage arising from the nature of the work, or from the action of the elements, except as before provided, or from any unforeseen difficulties which may be encountered during the prosecution of the work until final acceptance by the AGENCY, and for all risks of every description connected with the prosecution of the work; and for completing the work according to these Plans and Specifications. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective work or material.

No allowance will be made, other than as indicated in this Contract, for loss of anticipated profits. Increased or decreased work involving supplemental agreements will be paid for as provided in such agreements.

10.3 PAYMENT FOR EXTRA WORK

Extra work, when ordered and accepted, shall be specified in a written Contract Change Order and shall be executed in accordance with the terms therein provided. Payment for extra work will be made at the unit or lump sum price bid, when applicable, or as otherwise agreed upon in the Contract Change Order.

Extra work which has not been agreed to in price prior to the work occurring shall be considered Force Account Work. Where payment is to be made on a force account basis, the Contractor shall receive the actual cost of all material, equipment rental and operation and labor furnished by him/her plus an added markup of fifteen percent (15%); provided, however, that the AGENCY reserves the right to furnish such materials required as it deems advisable, and the Contractor shall have no claim for profit on the cost of such materials.

The Contractor shall provide a copy of the Daily Extra Work Report (DEWR) for each day of extra work. The DEWR is to be signed by the Contractor's authorized representative and the AGENCY'S on site representative on the day the work is performed. THE DEWR is to include the name and hours for each person, equipment designation and hours and designation and quantities of all materials. Items not included on the DEWR will not be paid for. Work on DEWR not signed by the AGENCY'S on site representative will not be paid for.

A copy of each DEWR with the labor rates, equipment rates, cost of materials, extended amounts, markups and total. Computer generated sheets can be submitted if the information on the computer sheets can be readily cross referenced with the signed DEWR.

To the total of the direct costs and markups referred to above shall be added an amount for actual additional Contractor bond and insurance costs (other than worker's compensation) incurred as a direct result of the Force Account work, not to exceed two and one-half percent (2.5%) of the direct costs with markup. The actual additional bond and insurance costs shall be substantiated by documentation submitted by Contractor to the Engineer. No additional markup on bond or insurance costs shall be allowed hereunder.

When extra work to be paid for on a force account basis is performed by a subcontractor, approved in accordance with the provisions in Section 9.1 titled "Subcontracting," an additional markup of five percent (5%) will be added to the total cost of said extra work including all markups specified in Section 10.3, titled "Payment for Extra Work." Said additional five percent (5%) markup shall reimburse the Contractor for additional administrative costs, and no other additional payment will be made by reason of performance of the extra work by a subcontractor.

When both additional and deleted work are involved in any one change, the markup allowances of this section shall be applied to the net extra cost of the work, if any, after subtraction of the costs for the omitted work from the extra work. For Change Order work which results in a net decrease in cost a minimum of five percent (5%) markup shall be added to the sum of the direct labor, materials and equipment as a deduction for profit, indirect and overhead costs and reduction in bond and insurance. The Contractor shall neither be entitled to nor claim anticipated profits on work that may be omitted.

The added fixed fees shall be considered to be full compensation, covering the cost of general supervision, overhead, profit, small tools, incidentals and any other general expenses. The above fixed fees represent the maximum limits which will be allowed, and they include, but are not limited to, the Contractor's and all subcontractor's indirect field and home office expenses and all other costs for cost proposal preparation, schedule analysis and preparation, operation and maintenance manual documentation, and record documents and change order administration.

10.3.1 Direct Labor Cost - Charges for all of the labor furnished and used by the Contractor shall be made for manual classifications up to and including general foreman, when authorized by the Engineer for the workers used in the actual and direct performance of the work. It will not include charges for assistant superintendents, superintendents, office personnel, timekeepers and maintenance mechanics. The time

charged to extra work shall be subject to the daily approval of the Engineer and evidence of such daily approval shall be submitted with the billing. Labor rates used to calculate the costs shall be those basic wages including current employer contributions for fringe benefits and including applicable subsistence and travel allowances, all as actually paid to workers under collective bargaining agreements or as regular workers under collective bargaining agreements or as a regular practice of the employer. No time or charges will be allowed except when the workers are actually engaged in the proper, efficient and diligent performance or completion of the extra work as authorized. The Contractor shall submit with the billing, copies of certified payrolls for labor associated with extra work. Overtime shall not be worked without prior approval of the Engineer.

10.3.2 Equipment Cost - Charges for the rental and operation of the equipment furnished and used by the Contractor shall be made for all prime construction and automotive equipment. It shall not include charges for listed equipment or major tools with a new cost of five-hundred dollars (\$500.00) or less. Equipment time charges shall be subject to the daily approval of the Engineer and evidence of such daily approval submitted with the billing. The Contractor will be paid for the use of equipment at the rental rates listed for such equipment in the California Department of Transportation publication entitled Labor Surcharge And Equipment Rental Rates, which is in effect on the date upon which the work is accomplished and which is a part of the Contract, regardless of ownership and any rental or other agreement, if such may exist, for the use of such equipment entered into by the Contractor, except that for those pieces of equipment with a rental rate of ten dollars (\$10.00) per hour or less as listed in the Labor Surcharge And Equipment Rental Rates publication and which are rented from a local equipment AGENCY, other than Contractor owned, the Contractor will be paid at the hourly rate shown on the rental AGENCY invoice or agreement for the time used on force account work. If a minimum equipment rental amount is required by the local equipment rental AGENCY, the actual amount charged will be paid to the Contractor.

If it is deemed necessary by the Engineer to use equipment not listed in said publication, a suitable rental rate for such equipment will be established by the Engineer. The Contractor may furnish any cost data which might assist the Engineer in the establishment of such rental rate. If the rental rate established by the Engineer is ten dollars (\$10.00) per hour or less, the provisions above concerning rental of equipment from a local equipment AGENCY shall apply.

10.3.3 The rental rates paid as above provided shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.

10.3.4 Operators of rented equipment will be paid for as provided in Section 10.3.1, titled "Direct Labor Cost."

10.3.5 All equipment shall, in the opinion of the Engineer, be in good working condition and suitable for the purpose for which the equipment is to be used.

10.3.6 Unless otherwise specified, manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer. Rental time will not be allowed while equipment is inoperative due to breakdowns.

10.3.7 The time to be paid for equipment on the work shall be the time the equipment is in operation on the extra work being performed, and in addition, shall include the time required to move the equipment to the location of the extra work and return it to the original location or to another location requiring no more time than that required to return it to its original location, except that moving time will not be paid for if the equipment is used at the site of the extra work on other than such extra work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made if the equipment is used at the site of the extra work on other than such extra work. The following shall be used in computing the rental time of equipment on the work:

- A. When hourly rates are listed, less than thirty (30) minutes of operation shall be considered to be two (2) hours of operation.
- B. When daily rates are listed, less than four (4) hours of operation shall be considered to be two (2) days of operation.

10.3.8 When owner-operated equipment is used to perform extra work to be paid for on a force account basis, the Contractor will be paid for the equipment and operator, as follows:

Payment for the equipment will be made in accordance with the provisions in Section 10.3.2, titled "Equipment Cost."

Payment for the cost of labor and subsistence or travel allowance will be made at the rates paid by the Contractor to other workers operating similar equipment already on the Project or, in the absence of such other workers, at the rates for such labor established by collective bargaining agreements for the type of workman and location of the work, whether or not the owner-operator is actually covered by such an agreement.

To the direct cost of equipment rental and labor, computed as provided herein, will be added the markups for equipment rental and labor as provided in Section 10.3, titled "Payment for Extra Work."

All force account work shall be adjusted daily upon Daily Extra Work report sheets, furnished to the Contractor by the Engineer and signed by both parties, which daily reports shall thereafter be considered the true record of force account work done.

10.3.9 Material Costs - Charges for the cost of materials furnished by the Contractor shall be made provided such furnishing was specifically authorized in the extra work order and the actual use verified by the Engineer. Charges shall be net cost to the Contractor delivered at the job, including all applicable sales taxes and vendor's invoice must accompany the billing along with verification of use of such materials by the Engineer.

10.4 PROGRESS PAYMENTS

Once each month the Contractor shall submit to the AGENCY a Request for Payment on forms to be provided by the AGENCY. The Request for Payment shall follow the form of the Schedule of Values required by the Engineer.

Upon receipt of a Request for Payment, the AGENCY shall review it as soon as practicable to determine if it is proper. Any Request for Payment determined not to be a proper request suitable for payment shall be returned to the Contractor as soon as practicable, but not less than seven (7) days after receipt. Any Request for Payment returned to the Contractor shall be accompanied by a document setting forth in writing the reasons why the request is not proper.

Upon receipt of an undisputed and properly submitted Request for Payment the AGENCY shall prepare a written Progress Pay Estimate which shall include the total amount of work done including Contract Change Orders and/or force account and allowances for materials on hand. The Progress Pay Estimate shall be submitted to the AGENCY Board of Directors for approval.

In accordance with the provisions of Section 20104.50 of the Public Contract Code, the AGENCY shall pay interest at the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure on any Request for Payment submitted by the Contractor if the AGENCY fails to make the progress payment within thirty (30) days after receipt of an undisputed and properly submitted Request for Payment. The number of days available to the AGENCY to make a progress payment without incurring interest pursuant to Section 20104.50 of the Public Contract Code shall be reduced by the number of days by which the AGENCY exceeds the seven (7) day requirement set forth above for the return of an improper Request for Payment.

Pipelines, whether paid on a lump sum or unit price basis shall be considered 75% complete when laid and backfilled with compaction tests passed; 85% complete when hydrostatic and bacteria tests have passed, and pipe has been tied-in to the AGENCY'S system; and 100% complete when the paving is accepted.

To be acceptable for partial payment, materials on hand must be clean, undamaged, and properly stored as directed by the Engineer. The quantity of materials on hand shall not include materials used in any partially completed items of work. The Request for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that the AGENCY has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances ("Liens") and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect AGENCY'S interest therein, all of which will be satisfactory to AGENCY. The amount of retainage with respect to progress payments will be as stipulated in the Contract.

Each Progress Pay Estimate shall include an accounting of the Contract time, including any allowances or revisions due to weather and/or Contract Change Orders.

The AGENCY will pay ninety percent (90%) of the amount of each Progress Pay Estimate less any withholds under this or the following sections, within thirty (30) days of approval of the Progress Pay Estimate by the Contractor and the Engineer. Ten percent (10%) shall be retained until fifty percent (50%) of the Project is complete and accepted. After fifty percent (50%) of the Project is complete and accepted, the AGENCY will pay one hundred percent (100%) of the amount of each progress pay estimate, less any withholds under this or the following Section. No payments, except the final payment, shall constitute an acceptance of any portion of the work.

Prior to issuance of a check from the AGENCY, the AGENCY may require the Contractor to furnish the following information: a current list of subcontractors, current fringe benefit statements, apprenticeship certifications, and certified payrolls.

If the Contractor fails to correct a prevailing wage deficiency within fifteen (15) days after notification, a deduction shall be made. In such cases, the deduction shall be ten percent (10%) of the estimated value of the work done during the month, except that the deduction shall not exceed ten-thousand dollars (\$10,000), nor be less than one-thousand dollars (\$1,000), and shall be deducted from the progress payment.

Deductions for noncompliance shall be in addition to all other deductions provided for in these Specifications, and shall apply irrespective of the number of instances of noncompliance. Deductions shall be made separately and additively for each estimate period in which a new deficiency appears. When all deficiencies for a period have been corrected, the deduction covering that period shall be released on the next progress payment. Otherwise, the deduction shall be retained.

The Contractor may elect to receive one-hundred percent (100%) of payments due under the Contract from time to time, without retention of any portion of the payment by the AGENCY, by depositing securities of equivalent value with the AGENCY in accordance with the provisions of Section 22300 of the Public Contract Code. Such securities, if deposited by the Contractor, shall be valued by the AGENCY, whose decision on valuation of the securities is final.

10.5 RIGHT TO WITHHOLD PAYMENTS

When, in the judgment of the Engineer, the work is not proceeding in accordance with the provisions of the Contract or good construction practice, or when in the Engineer's judgment the total amount of work done since the last estimate amounts to less than five thousand dollars (\$5,000.00), the AGENCY may elect to not prepare a Progress Pay Estimate and make no Progress Payment.

In addition to all other rights and remedies of the AGENCY hereunder and by virtue of law, the

AGENCY may withhold or nullify the whole or any part of any progress payment or up to one-hundred and fifty percent (150%) of the disputed amount from the final payment (see California Public Contract Code Section 7107) to such extent as may reasonably be necessary to protect the AGENCY from loss on account of:

- A. Defective work not remedied, irrespective of when any such work be found to be defective;
- B. Claims or liens filed or other reasonable evidence indicating probable filing of claims or liens including, but not limited to, claims under California Labor Code Sections 1775, 1776, or 1777.7;
- C. Failure of the Contractor to make payments properly for labor, materials, equipment, or other facilities, or to subcontractors and/or suppliers;
- D. A reasonable doubt that the work can be completed for the balance then unearned;
- E. A reasonable doubt that the Contractor will complete the work within the agreed time limits;
- F. Costs to the AGENCY, including without limitation, liquidated damages, resulting from failure of the Contractor to complete the work within the proper time;
- G. Failure to comply with environmental and other regulatory requirements;
- H. Cost of insurance arranged by the AGENCY due to cancellation or reduction of the Contractor's insurance;
- I. Payments due the AGENCY from the Contractor, including but not limited to the monthly service charge, and consumption charge for water used by Contractor;
- J. Penalties under Labor Code Section 1775, 1776, 1777.5, 1810 through 1815, or any of them;
- K. Failure to adequately supervise the work competently and efficiently and pursue completion of the Project with an adequate work force in compliance with established construction schedule;
- L. Failure to maintain as-constructed information and Drawings current for the Project;
- M. Provisions of law that enable or require the AGENCY to withhold such payments in whole or in part; or
- N. Damage to another contractor or third party, work or property.

Whenever the AGENCY shall, in accordance herewith, withhold any monies otherwise due the Contractor, written notice of the amount withheld and the reasons therefore will be given the Contractor. After the Contractor has corrected the enumerated deficiencies, the AGENCY will promptly pay to the Contractor the amount so withheld. When monies are withheld to protect the AGENCY against claims or liens of mechanics, suppliers, subcontractors, etc., the AGENCY may at its discretion permit the Contractor to deliver a surety bond in terms and amount satisfactory to the AGENCY, indemnifying the AGENCY against any loss or expense, and upon acceptance thereof by the AGENCY, the AGENCY shall release to the Contractor monies so withheld.

10.6 CLAIMS FOR EXTRA WORK/FOR EXTENSIONS OF TIME

The Contractor shall not be entitled to the payment of any additional compensation or any extensions of time for any cause, including any act, or failure to act by the Engineer, or happening of any event, thing or occurrence, unless the Contractor shall have given the Engineer due written notice of potential claims as hereinafter specified. It is the intention of this Section that the differences between the parties, arising under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. It is also the intention of this Section to implement the provisions of Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3 of the Public Contract Code of California. The Contractor hereby agrees that he or she shall have no right to additional compensation or an extension of time for any claim that may be based on any act, failure to act, event, thing or occurrence for which no written notice of potential claim as herein required was filed.

All claims shall be filed in writing on or before the times prescribed herein, but in no event later than thirty (30) days after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty (60) days after such occurrence (unless Engineer allows an additional period of time to ascertain more accurate data in

support of the claim). All claims shall set forth clearly and in detail, for each item of additional compensation or extension of time claimed, the reasons for the claim, references to applicable provisions of the Specifications, the nature and the amount of the cost involved, the computations used in determining such costs, and all pertinent factual data necessary to substantiate the claim. No claim for an adjustment in the Contract price will be valid if not submitted in accordance with this provision.

The Contractor shall proceed with the work in accordance with the plans and Specifications and determinations and instructions of the Engineer during the resolution of any claims disputes. The Engineer shall have authority to issue Field Directives and Field Orders, which Contractor shall properly carry out. If Contractor believes that any such Field Directive or Field Order entails work beyond the scope of the Contract, Contractor shall provide notice in accord with this Section 10.6.

10.6.1 Claims of Less Than Fifty-Thousand Dollars (\$50,000) – The AGENCY will respond in writing to claims for less than fifty-thousand dollars (\$50,000) within forty-five (45) days of receipt of the claim, or may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the AGENCY may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this subsection upon mutual agreement of the AGENCY and the Contractor. The AGENCY'S written response to the claim, as further documented, will be submitted to the Contractor within fifteen (15) days after receipt of the further documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information, whichever is greater.

10.6.2 Claims Over Fifty-Thousand Dollars (\$50,000) But Not Over Three-Hundred and Seventy-Five Thousand Dollars (\$375,000) –

The AGENCY will respond in writing to claims over fifty-thousand dollars (\$50,000) but not over three-hundred and seventy-five thousand dollars (\$375,000) within sixty (60) days of receipt of the claim, or may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the AGENCY may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this subsection, upon mutual agreement of the AGENCY and the Contractor. The AGENCY's written response to the claim, as further documented, shall be submitted to the Contractor within thirty (30) days after receipt of the further documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater.

10.6.3 All Claims of Three-Hundred and Seventy-Five Thousand Dollars (\$375,000) or Less - If the Contractor disputes the AGENCY'S written response or the AGENCY fails to respond within the times prescribed for claims of three-hundred and seventy-five thousand dollars (\$375,000) or less, the Contractor may so notify the AGENCY, in writing, either within fifteen (15) days of receipt of the AGENCY'S response or within fifteen (15) days of the AGENCY'S failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon such a demand, the AGENCY will schedule a meet and confer conference within thirty (30) days for settlement of the dispute. If following the meet and confer conference the claim or any portion remains in dispute, the Contractor may file a claim pursuant to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of these provisions, the running of the period of time in which a claim must be filed shall be tolled from the time the Contractor submits his or her written claim pursuant to this section until the time the claim is denied, including any period of time utilized by the meet and confer conference. The procedures governing all civil actions filed by the Contractor to resolve claims of three-hundred and seventy-five thousand dollars (\$375,000) or less shall be those set forth in Public Contract Code Section 20104.4 which provides for mediation and judicial arbitration. In any suit filed under Section 20104.4, the AGENCY shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law. The AGENCY will pay any portion of a claim that is undisputed in accordance with the payment provisions of the Contract.

10.6.4 Claims of Three-Hundred and Seventy-Five Thousand Dollars (\$375,000) or More - All claims of \$375,000 or more are subject to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. Jurisdiction over such claims shall rest with the Superior Court of the State of California.

10.6.5 Final Payment - Whenever the Contractor shall deem all work under this Contract to have been completed in accordance therewith, he/she shall so notify the Engineer in writing, and the Engineer shall promptly ascertain whether the work has been satisfactorily completed and, if not, shall advise the Contractor in detail and in writing of any additional work required. Completion of work will include submittal and approval of 'As-Built' record Drawings and final O&M manuals. When all the provisions of the Contract have been fully complied with to the satisfaction of the Engineer, he/she shall proceed with all reasonable diligence to determine accurately the total value of all work performed by the Contractor at the prices set forth in the Contract or fixed by Change Orders, and the total value of all extra work, all in accordance with the Contract. The Engineer will then certify to said final estimate and to the completion of the work, and will file copies thereof with the AGENCY and the Contractor. The date of completion shall be the date upon which the AGENCY makes its formal acceptance of the work.

Within ten (10) days after the date of completion, the AGENCY will file in the Office of the County Recorder, a Notice of Completion of the work herein agreed to be done by the Contractor. On the expiration of thirty-five (35) days after the recordation of such Notice of Completion, the difference between said final estimate and all payments theretofore made to the Contractor shall be due and payable to the Contractor, subject to any requirements concerning the furnishing of a maintenance bond, and excepting only such sum or sums as may be withheld or deducted in accordance with the provisions of this Contract. All prior certifications, upon which partial payments may have been made, being merely estimates, shall be subject to correction in the final certificate.

It is mutually agreed between the parties to the Contract that no certificate given or payments made under the Contract, except the final certificate or final payment, shall be conclusive evidence of the performance of the Contract, either wholly or in part, against any claim of the AGENCY, and no payment shall be construed to be an acceptance of any defective work or improper materials.

The Contractor further agrees that the payment of the final amount due under the Contract, and the adjustment and payment for any work done in accordance with any alteration of the same, shall release the AGENCY, the Directors, the General Manager, the Engineer, and their Consulting Engineers, employees and volunteers, from any and all claims or liability on account of work performed under the Contract or any alteration thereof.

11. DEFINITIONS AND TERMS

11.1 DEFINITIONS

Whenever the following terms occur in the Contract Documents, the meaning shall be interpreted as follows:

ACCEPTANCE, FINAL ACCEPTANCE - The formal action by the AGENCY Board of Directors accepting the work as being complete.

ACCEPTED BID - The bid (proposal) accepted by the AGENCY.

ADDENDA - A document issued by the AGENCY during the bidding period which modifies, supercedes, or supplements the original Contract Documents.

AGENCY INSPECTOR - The person or firm authorized by the AGENCY to conduct construction review or observation.

AGENCY - The Kern County Water AGENCY or its authorized representative.

ALLOWANCE - "Allowance" shall mean an amount of money set aside under the Contract for a special purpose identified in the Contract Documents.

ASBESTOS - Any material that contains more than one percent (1%) asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

BIDDER - Any individual, partnership, corporation, joint venture, or other combination thereof submitting a proposal for the work contemplated, acting directly or through an authorized representative.

CHANGE OR DEVIATION - The use of an alternative item of material or equipment that may not necessarily conform to the letter of the Contract requirements.

CHANGE ORDER - A document signed by the Contractor and the AGENCY and authorized by the AGENCY regarding an addition, deletion, or revision in the work, or an adjustment in the Contract price or the Contract time, issued on or after the effective date of the Contract.

CLAIM - A separate demand by the Contractor for (a) a time extension, (b) payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the Contract and payment of which is not otherwise expressly provide for or the Contractor is not otherwise entitled to, or © an amount the payment of which is disputed by the AGENCY.

CLARIFICATION - A document issued by the AGENCY to the Contractor that interprets the requirement(s) and/or design intent of the Contract Documents, may not represent an addition, deletion, or revision in the Work or an adjustment in the Contract price or the Contract times.

CONSULTANTS - Any individual, partnership, corporation, joint venture, or other combination thereof, performing work or services, directly or indirectly, for the AGENCY.

CONSULTING ENGINEER - The term "Consulting Engineer" means the Consulting Engineer or his/her authorized representative.

CONTRACT - The written agreement executed between the AGENCY and the Contractor covering the performance of the work.

CONTRACT TIME - The number of calendar days allowed for the completion of the work included in the Contract.

CONTRACTOR - The individual, partnership, corporation, joint venture, or other combination thereof who has entered into the Contract with the AGENCY for the performance of the work. The term "Contractor" means the Contractor or his/her authorized representative.

DAYS - Unless otherwise specified, days shall mean calendar days.

DEFECTIVE WORK - Work that is unsatisfactory, faulty, or deficient; or that does not conform to the Contract Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents.

DISTRICT – Improvement District No. 4 of the Kern County Water AGENCY.

ENGINEER - The person, agent, consultant, or employee designated by the AGENCY as Engineer authorized by the AGENCY, as set forth in the Contract Documents, to represent the AGENCY, for the purposes of administering this Contract. Assistants, if designated by the Engineer to act on behalf of the Engineer, may do so provided they are authorized by the Engineer.

FIELD DIRECTIVE - Written documentation of the actions of the AGENCY or Engineer in directing the Contractor. Field Directives may be in the form of supplemental Drawings or instructions which may be issued as necessary to clarify or define the intent of the Contract Drawings or Specifications. There may be a change in Contract Sum or Contract Time involved with the work shown in a Field Directive. Also referred to as a Directive.

FIELD ORDER - A written order given to the Contractor authorizing work that is a change to the scope of the Work carried out on a time and materials basis.

FINAL COMPLETION - The date when the Work is one-hundred percent (100%) complete, including completion and acceptance of all punch list corrections, as certified by the AGENCY.

FURNISH - The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

HAZARDOUS WASTE - The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6906) as amended from time to time.

HOLIDAYS - Legal Holidays shall include the following holidays designated by the AGENCY: New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving and Christmas Day.

INSTALL - The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

MAY - "May," wherever or in whatever manner used, refers to permissive actions.

MILESTONE - A principal event specified in the Contract Documents relating to an intermediate completion date of a separately identifiable part of the Work or a period of time within which the separately identifiable part of the Work should be performed prior to Substantial Completion of all the Work.

NOTICE OF AWARD - The written notice by the AGENCY to the apparent successful Bidder stating that upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein within the time specified, the AGENCY will enter into an Agreement.

NOTICE OF COMPLETION - A form signed by the Engineer recommending to the AGENCY that the Work is 100% complete, including completion and acceptance of all punch list corrections and fixing the date of Final Completion. After acceptance of the Work by the AGENCY's governing Board, the form is signed by the AGENCY and filed with the County Recorder.

OR EQUAL - Whenever material or equipment is indicated in these Specifications by stating names of proprietary items or of particular suppliers, the naming of the item is intended to establish the type, function, and quality required. The Contractor may select any of these named items for use on the Project. When the name is followed by the words "or-equal," it indicates that a substitution may be

submitted for approval. An "or-equal" item serves the same function; has the same dimensions, appearance, quality, terms of warranty, durability, reliability, cost in service and maintenance; and complies with the same codes and standards as the named item. Further, its substitution will have no effect on Project details, cost, and program.

PLANS, DRAWINGS - The plans (Drawings), or reproductions thereof, which show the location, character, dimensions, and details of the work to be done.

PROJECT - The total construction of which the Work to be provided under the Contract Documents, may be the whole, or a part thereof as indicated elsewhere in the Contract.

PROVIDE - The words "provide" or "perform," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.

PUNCH LIST - List of incomplete items of work and of items of work which are not in conformance with the Contract. The list will be prepared by the Engineer in writing when the Contractor notifies the Engineer in writing that the work has been completed in accordance with the Contract Documents and is ready for the AGENCY'S acceptance.

REQUEST FOR INFORMATION (RFI) - A written request prepared by the Contractor requesting additional information necessary to clarify or amplify an item in the Contract Documents that the Contractor believes is not clearly shown or called for in the Drawings or Specifications or other portions of the Contract Documents, or to address problems which have arisen under field conditions. An RFI is not to be used for request for materials/equipment substitutions or value engineering/cost reduction incentive proposals.

REQUEST FOR QUOTATION (RFQ) - A request for a proposed cost made to the Contractor by the AGENCY to add, delete or change the Work. RFQ's shall not be deemed to be directions to proceed with any addition, deletion or change to the Work.

SALVAGE - All items specified to be salvaged shall be carefully removed so as not to damage the item, and neatly stockpiled at the construction site by the Contractor. The exact location to stockpile items shall be determined by the Engineer. The Engineer shall then make a determination as to which items are to be retained by the AGENCY. All other items shall be properly disposed of at no additional cost to the AGENCY.

SHOP DRAWINGS (SUBMITTALS) - Shop Drawings (submittals) are Drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data which are prepared by the Contractor or any subcontractor, manufacturer, supplier, or distributor and which illustrate some portion of the work.

SPECIFICATIONS - The directions, provisions, and requirements contained in the General Provisions and Technical Provisions as supplemented by the Special Provisions.

STANDARD DRAWINGS, STANDARD PLANS - That portion of the plans identified or referenced as such.

STOP NOTICE - A legal remedy for subcontractors and suppliers who contribute to public works, but who are not paid for their work which secures payment from construction funds possessed by the AGENCY. For public property, the Stop Notice remedy is designed to substitute for mechanic's lien rights.

SUBCONTRACTOR - An individual, partnership, corporation, joint venture, or other combination thereof who has a contract with the Contractor to perform any of the work. Subcontractor also means an individual, partnership, corporation, joint venture, or other combination thereof who has a contract with another subcontractor to perform any of the work.

SUBSTANTIAL COMPLETION - See Special Condition Section C-5.10.4, "Final Inspection, Final Completion and Final Payment" for definition of substantial completion.

SUBSTITUTION - The use of an 'or equal' item of material or equipment that meets the Contract requirements, but is not a listed manufacturer or equipment.

TECHNICAL SPECIFICATIONS - The Contract Documents identified or referenced as such.

UTILITY - Public or private fixed works for the transportation of fluids, gasses, power, signals, or communications.

WORK - Any and all obligations, duties, and responsibilities necessary to complete the construction assigned to, or undertaken by, the Contractor pursuant to the Contract Documents including all labor necessary to produce such construction and all materials, equipment, and supplies incorporated or to be incorporated in the construction. Also, the completed construction or parts thereof required to be provided under the Contract Documents.

WORKING DAYS - A working day is defined as any day, except Saturdays, Sundays and AGENCY Legal Holidays. Any work scheduled by the Contractor on non-working days (Saturdays, Sundays, and AGENCY Legal Holidays) shall be verified with the AGENCY at least seventy-two (72) hours in advance. The AGENCY shall be compensated for inspection work, at an hourly rate, for any work on non-working days and for overtime.

Terms: Wherever the terms "required," "permitted," "ordered," "designated," "directed," "prescribed," or terms of like import are used, it shall be understood that the requirements, permission, order, designation, direction or prescription of the Engineer is intended. Similarly, the terms "acceptable," "satisfactory," "or equal," or terms of like import shall mean acceptable to or satisfactory to the Engineer, unless otherwise expressly stated. The word "provide" shall be understood to mean furnish and install.

(END OF SECTION)

SECTION 00810**SPECIAL PROVISIONS**

Description of Contract

**KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA-2006-06****A. Definitions**

Whenever the following terms occur in the contract documents, their meaning is as follows:

AGENCY	Kern County Water Agency P.O. Box 58 Bakersfield, CA 93302
GOVERNING BODY	Board of Directors
PROJECT MANAGER	Martin Varga, P.E.
ENGINEER/ARCHITECT	Dee Jaspar & Associates 3701 Pegasus Drive, Suite 121 Bakersfield, CA 93308
CONSTRUCTION ADMINISTRATION	Dee Jaspar & Associates 3701 Pegasus Drive, Suite 121 Bakersfield, CA 93308

B. Terms

Command type sentences used in the contract documents refer to and are directed to the Contractor.

C. Authority for the Work

The drawings, specifications, and other contract documents for the work were approved and adopted by the Governing Body of the AGENCY June 6th, 2007.

D. Marking and Addressing Bid Envelope

Seal the bid in an envelope addressed to the Owner and marked:

**BID FOR
CONSTRUCTION OF
KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06**

E. Investigations and Reports

The following reports which have been prepared for the AGENCY are available for review at the office of the Engineer/Architect:

None

F. Award of Contract or Rejection of Bids

Within a period of 60 calendar days after the opening of bids, the Owner will accept or reject the bids.

G. Time for Completion and Forfeiture Due to Delay

Project work will be substantially completed within 90 CONSECUTIVE CALENDAR DAYS, from and after the date of the Notice to Proceed.

Pursuant to Government Code 53069.85, forfeiture for each day completion is delayed beyond the time allowed will be at the rate of \$500 PER DAY.

H. Time to Furnish Bonds, Insurance and Contract

The undersigned hereby agrees to execute the Agreement, furnish the required bonds, insurance, and contract within FIFTEEN (15) DAYS from and after the date of Award of the Contract, or within such additional time as allowed by AGENCY.

(END OF SECTION)

SECTION 01110

COORDINATION OF WORK AND PERMITS

Description of Contract

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTACT NO. KCWA-2006-06

A. Description

This section generally describes the project and includes work sequence and schedule, CONTRACTOR'S use of premises, maintenance and operation of existing facilities, construction survey staking, and permits.

B. General Nature of Work

The CONTRACTOR shall provide all labor, materials, equipment and perform all operations necessary to drill, furnish, construct, and develop the new water wells as specified in these Specifications and Drawings. The Specifications and Drawings shall be applicable to each of the three wells. The quantities, sizes, and depths are subject to change upon review specified herein of the actual conditions encountered during the pilot hole and testing sequence. The CONTRACTOR shall be compensated based on the unit prices submitted in his bid.

C. Location of Project Site

The project site is located in Section 33, T29S, R27E, M.D.B. & M., south of the Cross Valley Canal Pumping Plant No. 6 and east of Coffee Road.

D. Work Sequence and Schedule

CONTRACTOR shall begin work within fifteen (15) calendar days of the issue date of the Notice to Proceed (NTP), and shall complete the work included in the Contract within the amount of time specified in Section 00810 titled, "General Provisions."

E. Maintenance or Operation of Existing Facilities

All existing gas, electric, telephone, sewer, and water facilities not owned and operated by the AGENCY that are within the project site shall remain in continuous operation.

F. Construction Survey Staking

Unless otherwise specified, the AGENCY will provide one set of construction stakes for the project. In the event the CONTRACTOR loses survey control, the CONTRACTOR shall pay for all replacement of survey control at no additional cost to the AGENCY.

G. Utility Locating

1. Utility companies with services in the area were contacted and utility locations were identified and indicated on the Plans. Some potholing was performed along the alignment to better identify locations, but not at all locations.
2. The CONTRACTOR shall physically locate all utilities prior to starting construction. The work shall be done in a timely manner such that adjustments in pipeline grades or alignment can be accomplished with minimal revisions to the pipeline design. The utility locating (potholing) shall be performed prior to final review of pipe fabrication

shop drawings.

3. Any delays during construction caused by utilities identified on the Plans but not shown in correct locations shall be the CONTRACTOR'S responsibility. The AGENCY will respond to pipeline conflict questions within twenty-four (24) hours.

(END OF SECTION)

SECTION 01200

MEASUREMENT AND PAYMENT

Description of Contract:

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA-2006-06

A. Work Listed in the Schedule of Work Items

1. Work under this contract will be paid on a unit price or lump-sum basis as outlined on the Bid Form for the quantity of work installed.
2. The unit prices and lump-sum prices include full compensation for furnishing the labor, materials, tools, and equipment and doing all the work involved to complete the work included in the contract documents.
3. The application for payment will be for a specific item based on the percentage completed or quantity installed. The percentage complete will be based on the value of the partially completed work relative to the value of the item when entirely completed and ready for service.

B. Work Not Listed in the Schedule of Work Items

1. The General Provisions and items in the Special Provisions, general requirements, and specifications which are not listed in the schedule of work items of the bid form are, in general, applicable to more than one listed work item, and no separate work item is provided therefor. Include the cost of work not listed but necessary to complete the project designated in the contract documents in the various listed work items of the bid form.
2. The bids for the work are intended to establish a total cost for the work in its entirety. Should the CONTRACTOR feel that the cost for the work has not been established by specific items in the bid form, include the cost for that work in some related bid item so that the proposal for the project reflects the total cost for completing the work in its entirety.

C. Mobilization

See Section 001505 titled "MOBILIZATION".

D. Sheeting, Shoring, and Bracing

Payment for sheeting, shoring, and bracing for the protection of life and limb, in conformance with the applicable safety orders, shall be included in the applicable bid items.

(END OF SECTION)

SECTION 001300

SUBMITTALS

Description of Contract:

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06

A. General

1. Three copies of the initial submittal log shall be submitted to the Engineer within 15 working days after receipt of the Notice to Proceed.
2. Three copies of the updated submittal log shall be submitted with each monthly schedule update.
3. The Engineer's approval of submittal shall not relieve the CONTRACTOR of the entire responsibility for the correctness of the work covered by the submittal. The CONTRACTOR shall assume all responsibility for misalignments, improper fitting and deficient work due to errors in the submittals.

B. Definitions

1. Or-Equal – Whenever material or equipment is indicated in these Specifications by stating names of proprietary items of particular suppliers, the naming of the item is intended to establish the type, function, and quality required. The CONTRACTOR may select any of these named items for use on the project. When the name is followed by the words "or-equal," it indicates that a substitution may be submitted for approval. An "or-equal" item serves the same function; has the same dimensions, appearance, quality, terms of warranty, durability, reliability, cost in service and maintenance; and complies with the same codes and standards as the named item. Further, its substitution will have no effect on project details, cost, and program.
2. Substitution – The use of an "or-equal" item of material or equipment that meets contract requirements.
3. Change or Deviation – The use of an alternative item of material or equipment that does not meet the contract requirements. In the section, the same procedure shall be followed to obtain approval as for substitutions. On the letter of transmittal, substitutions, changes, and deviations shall be noted as variations by the CONTRACTOR.

C. Submittal Procedures

1. Accompany each submittal with a separate letter of transmittal containing the following information:
 - a. CONTRACTOR'S name and the name of Subcontractor or supplier who prepared the submittal.
 - b. The project name and identifying contract number.
 - c. Submittal number.
 - d. Description of the submittal and reference to the Contract requirement or technical specification section and paragraph number being addressed

2. Submit the number and type of copies for each submittal and follow the procedures described below or in other paragraphs in this Section. Submit four (4) copies of submittals not covered in this Section 01300.

- a. Designation of Superintendent: Submit three (3) copies for information. Include name, address, home telephone number and a brief resume.
- b. List of Subcontractors and Major Suppliers: Submit three (3) copies for information. Include address, telephone number and name of responsible party.
- c. Schedule of Values: Submit three (3) copies for information. No copy will be returned.
- d. Manufacturers' Affidavits. Submit three (3) copies for items specified in the Technical Specifications. See Section 1140.
- e. Environmental Protection Plan. Submit three (3) copies for information.

D. Schedule of Submittals

1. Submit three (3) copies for information. No copy will be returned.

E. Submittal Log

1. Prepare and maintain an accurate submittal log for the duration of the project. The log shall contain a listing of submittals and shall include the following information for each listed item:
 - a. Specification section reference.
 - b. Projected submission date.
 - c. Actual submission date.
 - d. Projected need date for approval of the submittal.
 - e. Actual return date from the Engineer.
 - f. Notation of the Engineer's response.
 - g. Notation if re-submittal or record copy is required.

F. Number of Copies Required

1. Each Submittal: The CONTRACTOR shall furnish seven (7) copies of each submittal unless specified otherwise.
2. Drawings: Three full sized, thirty-six inches (36") by twenty-four inches (24"), direct prints and 1 clear legible, reproducible transparency of each original drawing shall be submitted for approval before manufacture or fabrication of the respective articles.
3. Catalogue sheets, brochures, and other printed sheets: Six (6) copies and one (1) original shall be submitted.

4. **Other Data:** When the Specifications require the submission of certifications, mill test reports, or purchase orders, a minimum of three (3) copies shall be submitted to the Engineer, unless otherwise specified.

G. Delivery Address

1. Unless otherwise specified, submittals shall be marked for the attention of Martin Varga, P.E. and shall be delivered to the AGENCY, 3200 Rio Mirada Drive, Bakersfield, California 93308 or mailed to P.O. Box 58, Bakersfield, California 93302-0058

H. Record Copies

1. Within 10 working days after approval a photo-sensitized or wash-Mylar material having a matte finish on both sides and with clear and legible lettering and delineation shall be submitted to the Engineer for review and acceptance. The shop, assembly, or layout drawings shall be copied directly from the correct original tracings.
2. Within 10 working days after approval an electronic copy of all drawings shall be sent to the Engineer for review and acceptance. All shop drawings shall be in electronic AutoCAD or compatible file format.
3. When catalogue sheets, brochures, or other printed sheets have been approved in view of drawings, electronic copies or reproducible transparencies of the printed sheets will not be required.
4. Record copies of the approved drawings shall be clean, legible without the use of magnification, and capable of producing copies that are comparable in quality to the original. Drawings which do not meet these criteria will not be accepted by the AGENCY. Any record drawing not accepted by the AGENCY shall be revised and resubmitted until it is acceptable to the AGENCY.

I. Plan of Operations

1. Submit three (3) copies.
2. Before beginning on site work, submit a plan showing CONTRACTOR'S intended use of the site assigned to it. Show location of enclosing fence, access points and gates. Show location for CONTRACTOR'S and Subcontractor's field offices and parking. Show location of CONTRACTOR'S and Subcontractor's work areas and storage areas.

J. Construction Schedule

1. Provide a completed critical path method (CPM) construction schedules to the Engineer for review and acceptance as required in Section 1312 titled, "Construction Schedule (Bar Charts)."

K. Shop Drawing, Product Data and Samples Submitted for Product Review

1. This paragraph covers submittal of Shop Drawings, Product Data and Samples required for the Engineer's review. All submittals are required for the Engineers Review unless specifically requested for Information Only.

2. Number and type of submittals:
 - a. Shop Drawings: Submit four copies more than the number required by the CONTRACTOR. Copies in excess of four will be marked, stamped and returned to the CONTRACTOR. The CONTRACTOR shall make and distribute the required number of additional copies to its superintendent, Subcontractors and suppliers.
 - b. Product Data: Submit four (4) clear copies. One copy will be marked, stamped and returned. The CONTRACTOR shall make and distribute the required number of additional copies to its superintendent, Subcontractors and suppliers.
 - c. Samples: Submit three (3) labeled samples or three (3) sets of samples of Manufacturer's full range of colors and finishes. Comply with requirements in Technical Specification Sections. One sample will be returned to CONTRACTOR.
3. The CONTRACTOR shall make all Product Review submittals early enough to allow adequate time for the Engineer's review and for manufacture and delivery to the construction site without causing delay to the Work. Submittals shall be made early enough to allow for unforeseen delays such as:
 - a. Failure to obtain Favorable Review because of inadequate or incomplete submittal or because the item submitted does not meet the requirements of the Contract Documents.
 - b. Delays in manufacture.
 - c. Delays in delivery.
4. Content of Submittals:
 - a. Each submittal shall include all of the items and material required for a complete assembly, system or Specification Section. Each item in every submittal shall be labeled with the Specification Section and paragraph number under which the item is specified.
 - b. Submittals shall contain all of the physical, technical and performance data required by the Specifications or necessary to demonstrate conclusively that the items comply with the requirements of the Contract Documents.
 - c. Include information on characteristics of electrical or utility service required and verification that requirements have been coordinated with services provided by the work and by other interconnected elements of the work.
 - d. Provide verification that the physical characteristics of items submitted, including size, configuration, clearances, mounting points, utility connection points and service access points, are suitable for the space provided and are compatible with other interrelated items that are existing or have or will be submitted.
 - e. Label each Product Data Submittal, Shop Drawing and Sample with the information required in paragraph K of this Section of the Technical Provisions. Highlight or mark every page of every copy of all Product Data submittals to show the specific items being submitted and all options included or choices offered.
 - f. Additional requirements for Product Review submittals are contained in the Technical

Provisions Section.

- g. Designation of work as "NIC" or "by others," shown on Shop Drawings, shall mean that the work will be the responsibility of the CONTRACTOR rather than the Subcontractor or supplier who has prepared the Shop Drawings.
- 5. Compatibility of Equipment and Material:
 - a. Verify that items contained in the same or in different submittals meet the requirements of the Technical Provisions.
- 6. Requirements for CONTRACTOR Designed Items and for First Specified (Named) Items.
 - a. Verify that items meet the requirements of the Technical Provisions.
- 7. Submittals that contain deviations from the requirements of the Contract Documents shall be accompanied by a separate letter explaining the deviations. The CONTRACTOR'S letter shall:
 - a. Cite the specific Contract requirement including the Specification Section and paragraph number for which approval of a deviation is sought.
 - b. Describe the proposed alternate material, item or construction and explain its advantages and/or disadvantages to the Owner.
 - c. State the reduction in Contract Price if any that is offered to the Owner.
- 8. Engineer's Review Procedure and Meaning:
 - a. The Engineer will stamp and mark each Product Review submittal prior to returning it to the CONTRACTOR. The stamp will indicate whether or not the review was favorable and what action is required of the CONTRACTOR. Review categories "No Exceptions Taken" and "Make Corrections Noted" both indicate Favorable Review.
 - b. The Engineer's Favorable Review is contingent on the CONTRACTOR'S warranties required by General Conditions.
 - c. Favorable Review is also contingent on:
 - (1) The compatibility of items included in a submittal with other related or interdependent items included in previous or future submittals.
 - (2) Future submittal of items related to or required to be part of this submittal that were not included with this submittal.
 - (3) Favorable Review of a submittal does not constitute approval or deletion of items required as part of the submittal but not included with the submittal. Favorable Review of items included in the submittal does not constitute deletion of specified features, options or accessories that were not included in the submittal.
 - d. The action required by the CONTRACTOR for each category of review is as follows:
 - (1) NO EXCEPTIONS TAKEN. NO RESUBMITTAL REQUIRED.

- (2) MAKE CORRECTIONS NOTED.
 - (3) NO RESUBMITTAL REQUIRED. The CONTRACTOR shall make corrections noted prior to manufacture.
 - (4) PARTIAL RESUBMITTALS REQUIRED. The CONTRACTOR shall submit related accessory or optional items as noted which are required but were not included with the submittal and/or shall resubmit unsatisfactory portions or attributes of items as noted. The CONTRACTOR may proceed to manufacture those portions of the submittal that will be unaffected by required resubmittals.
 - (5) AMEND AND RESUBMIT. The CONTRACTOR shall amend and resubmit the submittal as noted or required to comply with the Contract Documents.
 - (6) REJECTED - RESUBMIT. The item submitted does not comply with the Contract Documents in a major way. Resubmit items that comply with the requirements of the Contract Documents.
- e. The letter of transmittal accompanying the returned Product Review submittal may contain numbered notes. Marking a corresponding number on a Shop Drawing or Product Data submittal shall have the same affect as applying the entire note to the submittal.
9. Resubmittals that contain changes that were not requested by the Engineer on the previous submittal shall be accompanied by a letter explaining the change.
10. Favorable Review Required Prior to Proceeding.
- a. Do not proceed with manufacture, fabrication, delivery or installation of items prior to obtaining the Engineers Favorable Review of Product Review submittals.
11. Intent and Limitation on Engineer's Review:
- a. The CONTRACTOR has primary responsibility for submitting and providing work that complies with the requirements of the Contract Documents. That responsibility cannot be delegated in whole or in part to Subcontractors or suppliers. Neither the Engineer's Favorable Review nor the Engineer's failure to notice or comment on deficiencies in the CONTRACTOR'S submittals shall relieve the CONTRACTOR from the duty to provide work which complies with the requirements of the Contract Documents.

L. Substitutions or Proposed Equivalents

- 1. Comply with the submittal requirements for Shop Drawings, Product Data, and Samples submitted for Product Review.
- 2. Time of Submittal:
 - a. Submittal of Proposed Equivalents shall be made within thirty-five (35) days of the Notice to Proceed. The Engineer may agree to a later submittal date if requested in writing within 35 days of the Notice to Proceed. The request shall identify the item, give the Specification reference, and proposed manufacturer and model number of the item that will be submitted and the proposed submittal date.

- b. The Engineer's agreement to a later submittal date shall be in writing and shall not be construed as Favorable Review or acceptance of the manufacturer or item proposed.
3. Content of submittals shall be the same as that required for Product Data, Shop Drawings and Samples submitted for Product Review. In addition, the Engineer may request that the CONTRACTOR provide information on several recent similar installations of the item to verify its suitability. The information shall include the project name and location, the Owner's name, address, telephone number and name of a knowledgeable person to contact for information on performance of the product.
4. When the CONTRACTOR has listed a specific maker's products on its Bid, no changes will be permitted without submittal of acceptable evidence justifying the change and the Engineer's written approval.
5. If a non-equivalent substitute is submitted for review, it shall be accompanied by a proposed reduction in Contract Price which shall include the increased cost of Engineering service required to evaluate the proposed substitute (which shall be paid to the Owner whether or not the substitute is accepted) plus the greater of 1) the difference in price between the first specified item and the item submitted and 2) the difference in value to the Owner between the two items.

M. Product Information Submittals

1. Submit three copies. No copies will be returned.
2. Product Information submittals are required for the Owner's permanent records and will be used for future maintenance, repair, modification or replacement work. Product Information submittals will be examined only to verify that the required submittals have been made; they will NOT BE REVIEWED for compliance with the Contract Documents.
3. Make Product Information submittals prior to delivering material, products or items for which Product Information submittals are required.
4. The CONTRACTOR has the sole and exclusive responsibility for furnishing products and work that meets the requirements of the Contract Documents.
5. The Engineer reserves the right to comment on any submittal and to reject any product or work delivered, installed or otherwise at any time that the Engineer becomes aware that it is defective or does not meet the requirements of the Contract Documents.

N. Operation and Maintenance Manuals and Parts Lists

1. Submit three complete sets. Bind each copy in one or more "D" ring, 8-1/2x11, 3-ring binders with clear view spine and cover, National 79-692(3), K&M or equal. Prepare Titles for the spine and cover and a Table of Contents listing each piece of equipment. Organize the contents by Specification Section and paragraph number under which the equipment was specified. Provide labeled tab separators for each major item or group of smaller similar items. When standard manufacturer's literature is used highlight or mark all copies to shop specific items and options provided.
2. Provide operation and maintenance manuals and parts list for all equipment furnished under this contract. Comply with the detailed requirements in Technical Provisions. Include

instructions for delivery, storage, assembly, installation, lubrication, adjusting, start-up, operation and maintenance.

a. For all equipment include:

- (1) Startup instructions.
- (2) Normal operation instructions.
- (3) Trouble shooting instructions.
- (4) Lubrication instructions.
- (5) Maintenance and reinstallation instructions.
- (6) Parts identification.
- (7) List of spare parts recommended to have on hand.
- (8) Operator safety instructions.

b. For all Electrical Equipment, provide the following additional information:

- (1) Equipment ratings.
- (2) Calibration curves and rating tables if appropriate.

c. For Complex Equipment provide in addition:

- (1) Alternate specified operating modes.
- (2) Emergency shutdown instructions.
- (3) Normal shutdown instructions
- (4) Long-term shutdown instructions

d. Operation and maintenance manuals for systems composed of separate pieces of equipment shall include a system explanation of items 1, a, b, and c, and 3a through c, as well as the instructions for each separate piece of equipment.

3. Submit with Final Submittals.

O. As-built Drawings

1. Provide a completed set of construction as-built drawings to the Engineer for review and acceptance.

P. Manufacturer's Certificates

1. Submit three (3) copies.
2. When specified in Technical Provisions, submit manufacturers' certificate to Engineer for review. Indicate material or product conforms to or exceeds specified

requirements. Submit supporting reference data, affidavits, and certifications as appropriate. Certificates may be recent or previous test results on material or Product, but must be acceptable to the Engineer.

(END SECTION)

Attachment D

LETTER OF TRANSMITTAL
FOR SUBMITTAL NO.
CONTRACTOR:

ADDRESS:
PHONE:
FAX:

TO: Kern County Water Agency
P. O. Box 58
Bakersfield, CA 93302-0058

DATE: _____

CONTRACT NO: _____

SPEC.NO: _____

PROJECT: _____

WE ARE SUBMITTING THE ENCLOSED:

SHOP DRAWING

EQUIPMENT DATA

MATERIAL DATA

SAMPLES

CERTIFICATION OF COMPLIANCE

OTHER

FOR YOUR:

APPROVAL

INFORMATION

PLEASE RETURN _____ COPIES FOR OUR RECORDS

ITEM NO.	DESCRIPTION OF ITEM	NO. OF COPIES	CONTRACT REFERENCE SPEC. SECTION OR DRAWING SHEET NO.	VARIATION

REMARKS: All deviations from the construction contract shall be explained in detail.

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the Contract Drawings and Specifications except as otherwise stated.

NAME/SIGNATURE OF CONTRACTOR

DISPOSITION:

APPROVED

REVIEWED-NO CORRECTIONS NOTED

APPROVED AS REVISED

REVIEWED-CORRECTIONS NOTED-NO RESUBMITTAL
REQUIRED

RETURNED FOR REVISION

REVIEWED-RESUBMITTAL REQUIRED

SEE ATTACHED SHEET _____

FOR COMMENTS

SIGNATURE AND TITLE OF APPROVING AUTHORITY

DATE _____

SECTION 001312

CONSTRUCTION SCHEDULE (BAR CHARTS)

Description of Contract:

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA-2006-06

A. Submittals

1. Project schedule submittals shall consist of FOUR (4) paper copies, 8.5 by 11 inches or 11 by 17 inches and an electronic copy on CD format.
2. Baseline Project Schedule:
 - a. The CONTRACTOR shall submit the baseline project schedule within TEN (10) working days after receipt of the Notice to Proceed.
 - b. The Engineer will meet with the CONTRACTOR to review and discuss the proposed schedule within ten (10) working days of the meeting. At this meeting, the Engineer will inform the CONTRACTOR if the schedule is acceptable or if it must be revised and resubmitted.
 - c. In the event that correction of the baseline project schedule is required, the CONTRACTOR shall resubmit four (4) copies of the schedule with the corrections within 10 working days of the meeting. The Engineer will meet with the CONTRACTOR to review and discuss the schedule within ten (10) working days after receipt of the resubmittal. At this meeting, the Engineer will inform the CONTRACTOR if the Schedule is acceptable or if it must be revised and resubmitted.
3. Updates of the Project Schedule:
 - a. The updated project schedule shall be submitted by the 20th of each month.
4. Narrative Progress Report:
 - a. The CONTRACTOR shall submit four (4) copies of the monthly narrative progress report by the 20th of each month.
5. Failure to submit each package by the required date may result in a reduction in progress payment by AGENCY for the corresponding month.
6. Look-Ahead Schedule: Look Ahead Schedule shall be submitted weekly. When a project meeting is scheduled, the Look Ahead Schedule shall be submitted at least twenty-four (24) hours prior to the meeting. The number of copies submitted and the payout and format of the look-ahead schedule shall be acceptable to the Engineer.
7. Cash-Flow Forecast:
 - a. The CONTRACTOR shall submit the initial cash-flow forecast within ten (10) working days after receipt of the Notice to Proceed.
 - b. The CONTRACTOR shall submit a revised cash-flow forecast when the monthly pay estimate varies from the current cash-flow projection by more than fifty percent (50%), or the cumulative payment to date varies from the forecast by more than

twenty percent (20%).

- c. The CONTRACTOR shall provide 4 copies of all cash-flow forecast submittals on 8½ by 11-inch paper and an electronic copy on 3.5-inch disk in a file format specified by the AGENCY.

B. Project Schedule

1. The CONTRACTOR shall provide a critical path method (CPM) computer generated construction schedule using Suretrak, Microsoft Project, or equal software that has the capability of producing a Gantt chart.
2. The CPM schedule shall show in detail the CONTRACTOR'S plan of operations of the project. The degree of detail shall be to the satisfaction of the Engineer and shall include:
 - a. The project's critical path and significant project milestones.
 - b. The means, methods, and sequences for performing work.
 - c. Mobilization of plant and equipment.
 - d. Submission and approval of critical submittals.
 - e. Propose shutdowns and durations of existing facilities.
 - f. Fabrication and delivery of critical equipment and materials.
 - g. Approvals and permits required by regulatory agencies or other third parties.
 - h. Access to and availability of work areas.
 - i. Identification of interfaces and dependencies with preceding, concurrent, and follow-on CONTRACTORS.
 - j. Specified project phasing, milestones, and completion dates.
 - k. Testing.
 - l. The activities of the Engineer that may affect progress or affect required dates for completion of all or part of the work, including delivery of AGENCY-furnished equipment.
3. Revisions to the Baseline Project Schedule:
 - a. The CONTRACTOR shall immediately advise the Engineer of proposed or required changes in the schedule logic, changes in the critical path or delays to the progress of the work.
 - b. The CONTRACTOR shall furnish a revised schedule within ten (10) days of the event giving rise to such claim. A narrative description of the change, the necessity for the change, the impact of the change to the specified project milestones, and the cost to AGENCY if the revised schedule is accepted, shall be enclosed.
 - c. Within thirty days after the CONTRACTOR submits to the AGENCY a written request

for an extension of time, the Engineer shall return a written recommendation for the extension of time justified.

- d. The CONTRACTOR shall furnish a final revised schedule within ten (10) days of the award by the Engineer of an adjustment in the time of completion of the work.

4. Monthly Project Schedule Updates:

- a. The CONTRACTOR shall update the current project schedule monthly to show:
 - (i) Actual activity-start dates.
 - (ii) Actual activity-completion dates.
 - (iii) Estimated duration, in working days, to complete each activity that is started but not completed.
 - (iv) Actual total progress achieved to date on each activity in percent.
 - (v) Non-working days granted by the Engineer.

C. Narrative Progress Report

- 1. As part of the monthly updating process, the CONTRACTOR shall prepare a narrative progress report. The report shall describe the physical progress during the report period, the CONTRACTOR'S plan for continuing the work during the forthcoming report period, and actions planned to correct work that is behind schedule. The report shall also provide a discussion of potential delays and problems and their impact on performance and the overall project completion date.
- 2. If the project falls behind schedule by more than twenty (20) workings days, the report shall contain proposed alternatives for schedule recovery.

D. Cash-flow Forecast

- 1. The CONTRACTOR shall use any reasonable system to develop a cash-flow analysis that depicts the estimated cash expenditures in the aggregate, by month, over the life of the project. The CONTRACTOR shall provide data in both tabular and graphic display form.

(END OF SECTION)

SECTION 01400

INSPECTION OF THE WORK

Description of Contract:

**KERN COUNTY WATER AGENCY
MONITORING WELL PROJECT
CONTRACT NO. KCWA 2006-06**

A. Submittals

1. Orders: The CONTRACTOR shall submit, as soon as issued, three (3) copies of orders placed outside the CONTRACTOR'S plant for articles or materials to be incorporated in the work.
2. When requested by the Engineer, the CONTRACTOR shall furnish the Engineer such additional information as may reasonably be required regarding the character of the materials and the progress of their procurement, including copies of invoices, bills of lading, and shipping lists on all articles and materials for use on the work.
3. Test Report and Certifications:
 - a. Where certifications or mill-test reports are required, the CONTRACTOR shall submit three (3) complete, certified copies.
 - b. Certifications shall show chemical composition, mechanical properties, or other characteristics of the materials to be used in the work.
 - c. Material specified by a referenced standard shall be certifiable by the mill or manufacturer under that standard.
 - d. The testing, analysis, and certification shall be the responsibility of the CONTRACTOR.
4. Notices of Fabrication: The CONTRACTOR shall submit a separate notice of fabrication for each fabricated article and material.
 - a. For articles and materials fabricated outside Southern California, the CONTRACTOR shall submit the notice fourteen (14) days before starting fabrication.
 - b. For articles and materials fabricated within Southern California, the CONTRACTOR shall submit the notice five (5) days before starting fabrication.

B. Responsibilities

1. The CONTRACTOR shall be responsible for full compliance with every requirement of the contract documents and shall ensure that the work is in full accordance with these requirements. At all times, the CONTRACTOR'S work will be subject to rigid inspection by the Engineer. Whether discovered by the CONTRACTOR or the Engineer, nonconforming work shall be corrected or replaced by the CONTRACTOR.
2. For convenience, materials or equipment to be incorporated in the work may be designated in the Specifications by a trade name or the name of a manufacturer and the manufacturer's catalog item number information. Materials, articles, or equipment, even if supplied by a manufacturer designated in the Specifications, shall be accepted only if the items meet all other specification requirements.

3. The CONTRACTOR shall furnish all tools, equipments, materials, supplies, and manufactured articles necessary or required for the performance and completion of the work included in the Contract, except for materials and equipment specified to be furnished by the AGENCY. The materials, articles, and equipment provided for permanent installation in the work shall be new and shall be in accordance with these Specifications.
4. The CONTRACTOR shall perform quality control on suppliers, manufacturers, products, services, site conditions, and workmanship to ensure that work conforms to the contract documents. The CONTRACTOR shall be prepared to document its quality control activity.
5. The CONTRACTOR shall require and ensure conformance with specified standards as a minimum quality for the work. When more stringent tolerances, codes, or specified requirements are required by a particular manufacturer or a particular item of work, the higher standards or more precise workmanship shall be provided.
6. The Engineer's inspections and tests are for the sole benefit of the AGENCY and shall not:
 - a. Relieve the CONTRACTOR of responsibility for providing adequate quality control measures.
 - b. Relieve the CONTRACTOR of responsibility for damage to or loss of the material before acceptance.
 - c. Constitute or imply acceptance.
 - d. Affect the continuing rights of AGENCY after acceptance of the completed work.
7. The CONTRACTOR shall be responsible for adjustments, corrections, or repairs found necessary after the delivery or installation of materials and articles.
8. Unidentified materials shall not be used in the work, including work at fabrication plants.

C. Sequencing and Scheduling of Inspections and Tests

1. The CONTRACTOR shall fully advise the Engineer regarding progress of the work in its various parts.
2. The CONTRACTOR shall furnish and prepare the required samples and test specimens ready for testing in time for the necessary tests and analysis.
3. Where the Specifications require work to be tested or approved, it shall be tested only in the presence of the Engineer.
4. The Engineer shall be given timely notice of the CONTRACTOR'S readiness for inspection and test. The length of advance notice shall be appropriate for the complexity of the inspection or test, the availability of the Engineer's staff, and the location of the inspection or test, but in no case shall less than twenty-four (24) hours advance notice be given.

D. Testing

1. Materials and articles that are to be included in the works shall be subject to testing for conformance with the Specifications and Drawings.

2. When not otherwise specified, sampling and testing shall be in accordance with the methods prescribed in the current standards of ASTM applicable to the class and nature of the articles or materials considered. However, the Engineer will have the right to use any generally accepted method of testing that will ensure that the quality of materials, articles, or work is in full accord with the Specifications and Drawings.
3. The Engineer will have the right to select, test, and analyze, at the expense of the AGENCY, additional test specimens of the materials to be used. Results of these tests and analyses will be considered with the results of other tests or analyses, whether performed by the Engineer or the CONTRACTOR, to determine compliance with the applicable specifications for the materials.

E. Inspection by the Engineer

1. Materials and articles that are to be included in the works shall be subject to rigid inspection by the Engineer for conformance with the Specifications and Drawings. The CONTRACTOR shall plan for the inspections to be continuous, repetitive, and detailed.
2. Orders for materials, articles, and equipment shall note that the articles, materials, and equipment are subject to inspection and acceptance by the AGENCY, both during manufacture or fabrication and after delivery to the site.
3. When practicable and convenient for the Engineer, inspection will be made during the manufacture of the articles and equipment.
4. The location, alignment, grade, plumb, and other physical characteristics of formwork for concrete, items to be embedded in concrete and permanent improvements shall be subject to rigid survey verification.
5. Materials or articles shall not be incorporated in the work until they have been inspected by the Engineer.
6. After testing, work shall be covered or backfilled only with the approval of the Engineer.

F. Facilities for Inspection and Testing

1. The CONTRACTOR shall furnish the facilities, utilities, and assistance necessary for the safe and convenient performance of inspections and tests required by the Specifications or by the Engineer.
2. The CONTRACTOR shall provide adequate lighting, access, and ventilation for a safe working environment for inspections and tests.
3. The CONTRACTOR shall cooperate with the Engineer's staff in the performance of their respective duties and shall provide qualified personnel to assist with the performance of tests and inspections by them.
4. When the Specifications require tests or inspections to be performed by the CONTRACTOR, the CONTRACTOR shall provide qualified personnel to perform them.

G. Rejection of Work

1. The Engineer will have the right, at all times and in all places, to reject articles or materials to be furnished for the project that fail to meet the requirements of these Specifications. This

shall be regardless of whether the defects in these articles or materials are detected at the point of manufacture or after completion of the work at the site.

2. The Engineer will be the sole judge as to the acceptable quality of materials, articles, and work. However, where the Engineer, through an oversight or otherwise, accepts material, articles, or work that is defective or that is contrary to the Specifications, the material, article, or work, no matter in what stage or condition of manufacture, delivery, or erection, may be rejected by the Engineer.
3. Promptly after notification of rejection by the Engineer, the CONTRACTOR shall remove rejected portions or items of materials, articles, or work to a satisfactory distance from the vicinity of accepted items and shall replace them.

H. Final Inspections and Acceptance

1. Final inspections for acceptance of materials, articles, equipment, and work will be made at the completion of all contract work.
2. A minimum of 10 working days prior to the estimated completions of the work, the CONTRACTOR shall notify the Engineer in writing of the pending completion of the entire work or an agreed portion thereof. The CONTRACTOR shall include with the notice a complete list of work items remaining to be completed.
3. On or about the CONTRACTOR'S estimated completion date, the Engineer will make a thorough inspection of the entire work. Defects or deficiencies noted during this inspection will be reported to the CONTRACTOR in writing.
4. If the Engineer determines the work to be complete, it will be accepted. If defects or deficiencies are noted during this inspection, they will be reported in writing to the CONTRACTOR. When the CONTRACTOR notifies the Engineer of the correction of these items, another final inspection will be scheduled.
5. The CONTRACTOR shall provide a CONTRACTOR'S Release as attached to this document as Attachment C at the end of the project.

(END OF SECTION)

Attachment C

CONTRACTOR'S Release

Instructions to CONTRACTOR: With final invoice(s) submit one (1) original and two (2) copies. The original must bear the original signature of a person authorized to bind the CONTRACTOR. The additional copies may bear photocopied signatures.

Submission of Final Invoice: Pursuant to contract number _____ entered into between the State of California Department of Health Services (DHS) and the CONTRACTOR (identified below), the CONTRACTOR does acknowledge that final payment has been requested via invoice number(s) _____, in the amount(s) of \$ _____ and dated _____. If necessary, enter "See Attached" in the appropriate blocks and attach a list of invoice numbers, dollar amounts and invoice dates.

Release of all Obligations: By signing this form, and upon receipt of the amount specified in the invoice number(s) referenced above, the CONTRACTOR does hereby release and discharge the State, its officers, agents and employees of and any and all liabilities, obligations, claims, and demands whatsoever arising from the above referenced contract.

Repayments Due to Audit Exceptions / Record Retention: By signing this form, CONTRACTOR acknowledges that expenses authorized for reimbursement does not guarantee final allow ability of said expenses. CONTRACTOR agrees that the amount of any sustained audit exceptions resulting from any subsequent audit made after final payment, will be refunded to the State.

All expense and accounting records related to the above referenced contract must be maintained for audit purposes for no less than three years beyond the date of final payment, unless a longer term is states in said contract.

Recycled Product Use Certification: By signing this form, CONTRACTOR certifies under penalty of perjury that a percentage (0%-100%) of the materials, goods, supplies or products offered or used in the performance of the above referenced contract meets or exceeds the minimum percentage of recycled material, as defined in Public Contract Code Sections 12161 and 12200.

Reminder to Return State Equipment/Property (If Applicable): (Applies only if equipment was provided by DHS or purchased with or reimbursed by contract funds)

Unless DHS has approved the continued use and possession of State equipment (as defined in the above referenced contract) for use in connection with another DHS agreement, CONTRACTOR agrees to promptly initiate arrangements to account for and return said equipment to DHS, at DHS's expense, if said equipment has not passed its useful life expectancy as defined in the above referenced contract.

Patents / Other Issues: By signing this form, CONTRACTOR further agrees, in connection with patent matters and with any claim that are not specifically released as set forth above, that it will comply with all of the provisions contained in the above referenced contract, including, but not limited to, those provisions relating to notification to the State and related to the defense or prosecution of litigation.

CONTRACTOR'S Legal Name (As on contract): _____

Signature of CONTRACTOR or Official Designee: _____ Date: _____

Printed Name/Title of Person Signing: _____

SECTION 001500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

Description of Contract:

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06

A. Submittals

1. **Drawings:** The CONTRACTOR shall submit drawings showing the methods of temporary support and protection, along with calculations for the types of support structures of pipelines, utilities, and structures to remain in place or whose initial or subsequent alignment will be temporarily changed during construction.
2. **Leases:** If the CONTRACTOR elects to store materials or equipment at warehouses or yards on lands not owned by AGENCY, a copy of all leases shall be submitted.

B. Contractor's Work and Storage Yard Area

1. The CONTRACTOR shall locate offices, employee parking, storehouses, and storage areas for materials and equipment in the work and storage area.
2. The CONTRACTOR shall be responsible for the care of materials and equipment stored in the work and storage yard areas and warehouses, and for the proper maintenance of fencing and structures.
3. If the CONTRACTORS elect to store materials or equipment at warehouses or land not owned by the AGENCY, the lease or leases for such premises shall provide that the lesser notify the AGENCY immediately upon the CONTRACTOR'S default in the payment of rent on one or more of the leases.
 - a. AGENCY shall have the right to make payment of rent on behalf of the CONTRACTOR, shall be entitled to withhold from payments due the CONTRACTOR the amount paid, and shall, in addition, be entitled to withhold a sum sufficient to reimburse the AGENCY for expenses incurred in making the rent payments.
 - b. A copy of all leases for yards or storehouses shall be submitted to the Engineer at the time of execution of the Contract or when the lease is executed whichever occurs last.

C. Fire Protection and Prevention

1. All parts of the work shall be connected with the CONTRACTOR'S water supply system and adequately protected against damage by fire. Hose connections and hose, water casks, chemical equipment, and other equipment required by local jurisdictions shall be provided for fighting fires.
2. The exhaust pipes of internal combustion engines used in the work shall be equipped with approved spark arresters.

D. Dust Control

1. The CONTRACTOR shall provide effective measures to prevent operations from producing dust in amounts damaging to personnel, property, plants, or animals, and to prevent causing

a nuisance to persons living or occupying buildings in the vicinity.

2. Areas used by the CONTRACTOR for construction roads or other purposes in connection with the work shall be given an approved dust inhibiting surface treatment to avoid production of dust. This surface condition shall be continuously maintained during the entire construction period. The CONTRACTOR'S construction facilities shall be operated in a manner ensuring minimum dust production.
3. Trucks transporting soil, or cement, or debris shall be covered or moistened with water to suppress the dispersion of dust.
4. CONTRACTOR'S construction operations shall be in compliance with his Dust Control Permit at all times during the project.

E. Light Abatement

1. The CONTRACTOR shall exercise special care to direct floodlights to shine downward at an angle less than horizontal. These floodlights shall also be shielded to avoid a nuisance to the surrounding areas. No lighting shall include a residence in its direct beam. The CONTRACTOR shall correct lighting nuisance whenever it occurs.

F. Air Pollution Control

1. The CONTRACTOR shall not discharge smoke, dust, or other air contaminants into the atmosphere in a quantity that exceeds the legal limit.
2. The CONTRACTOR shall maintain equipment in proper mechanical adjustment to minimize the volume of exhaust emissions.

G. Noise Control

1. The CONTRACTOR shall conduct operations to abate noise wherever possible and to minimize noise where complete abatement is not possible.
2. To limit noise, construction vehicle equipment shall be kept in proper working order for the duration of the construction activities.

H. Cleaning up

1. During all phases of construction, including suspensions of the work, and until final acceptance the CONTRACTOR shall keep the site clean and free from rubbish and debris.
2. Upon completion of the work and before the final estimate is submitted, the CONTRACTOR shall satisfactorily dispose of or remove from the vicinity of the work all plants, buildings, rubbish, unused materials, concrete forms, and other equipment and materials used during construction.
3. If the CONTRACTOR fails to maintain the premises in a neat and clean condition or fails to remove and dispose of rubbish or materials at the completion of the project, the area may be cleaned and materials, equipment, and rubbish may be removed and disposed of by the AGENCY at the CONTRACTOR'S expense.

4. The CONTRACTOR will not be permitted to use AGENCY'S trash bins for disposal of trash or rubbish.

I. Protection of New and Existing Improvements

1. The general locations of existing utility installations shown on the Drawings are those that are known to exist, but this listing shall not be construed as a complete listing.
2. Where existing piping, utilities, and structures are to remain in place, these facilities shall be temporarily supported and protected until the work has been completed, and compacted backfill has been placed to fully support them. Facilities adjacent to the work shall be protected in place when excavating in their vicinity. The support system shall prevent movement, dislocation, and deflection of the piping, utilities, and structures at all times. Supports and protection shall be designed by a civil engineer currently registered in the State of California and shall be acceptable to the AGENCY of the improvement.
3. The CONTRACTOR shall cover and protect open holes at all times.

J. Restoration of Improvements

1. Upon completion of the work, the CONTRACTOR shall reconstruct existing roads to a condition equivalent to that which existed before the start of work.

K. Security

1. The CONTRACTOR shall prevent unauthorized personnel or vehicular entry into the project site.
2. The CONTRACTOR shall be responsible for providing security within the work site as the CONTRACTOR deems necessary for the protection of its own equipment, materials, or work from vandalism or theft. AGENCY will not be responsible for theft or damage to the CONTRACTOR'S equipment, materials, or work.

(END OF SECTION)

SECTION 001505**MOBILIZATION**

Description of Contract:

**KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06****PART 1 GENERAL****A. Mobilization**

1. Mobilization shall include moving onto the site; payment for bonds, ordering major equipment; furnishing construction equipment; and furnishing and erecting drilling equipment, temporary buildings, and other construction facilities for the performance and completion of the work and further specified in the Technical Provisions.

B. Payment for Mobilization

1. As soon as practicable after receipt of the Notice to Proceed, the CONTRACTOR shall submit a breakdown showing the relative value of each major component of mobilization, including furnishing bonds, where the total of all these values is equal to the amount of Item No. 1 of Document 004100, "Schedule of Work Items." This breakdown, when approved by the Engineer, shall be the basis for determination of percentage completion and progress payments for mobilization.
2. Progress payments for mobilization will be made on a percentage completion basis of the price name in the Bidding Sheet under Item No. 1.

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION (NOT USED)****(END OF SECTION)**

SECTION 001510

TEMPORARY UTILITIES AND SERVICES

Description of Contract:

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06

A. References

1. General

- a. The publications listed below form a part of this specification to the extent referenced.
- b. Where a date is given for reference standards, the edition of that date shall be used. Where no date is given for reference standards, the latest edition available on the date of Notice Inviting Bids shall be used.

2. National Fire Protection Association (NFPA)

- a. National Electrical code (NEC).

B. Submittals

1. Plans: A plot plan drawing of temporary utility layouts shall be submitted to the Engineer's field office. A single line diagram of the temporary construction power system shall be included.
2. Permits: The CONTRACTOR shall obtain and pay for all permits for temporary utilities and shall submit one copy of each permit to the Engineer's field office.

C. Water

1. AGENCY will furnish reasonable quantities for use in construction free of charge to the CONTRACTOR at locations designated by the Engineer and under the following terms and conditions:
 - a. The CONTRACTOR shall conserve water supplies and shall install approved meters to provide AGENCY with records of the volume of water used. Undue waste of water will be reason for AGENCY to close these sources to further use by the CONTRACTOR.
 - b. The method of pumping and the capacity and condition of pumps used by the CONTRACTOR shall be subject to the Engineer's approval.
 - c. The water sources to be designated by the Engineer will provide treated and untreated water. However, in permitting the use of water, no representation is made that water will always be available from that source. During system shutdowns or other similar occasions, water may not be available for the CONTRACTOR'S use. At these times, the CONTRACTOR shall provide water from its own sources.
2. The CONTRACTOR shall be solely responsible for the adequate functioning of its water supply system and shall be solely liable for claims or damage resulting from its use.
3. The CONTRACTOR shall provide and operate pumping plants, pipelines, valves hydrants,

storage tanks, and other equipment necessary to store and convey an adequate supply of water from the source to each work area. The design of the storage and conveyance system shall include consideration of the CONTRACTOR'S plan for fire protection. A reduced-pressure-principle backflow preventer or air gap shall be installed by the CONTRACTOR at each connection point of the CONTRACTOR'S water supply system to the source. The backflow preventer shall be tested by a certified backflow preventer assembly tester, and a copy of the report shall be provided to the Engineer. The CONTRACTOR shall provide secondary containment for canal-side pumps to ensure that no oil or other contaminants enter the water supply.

4. Treated and untreated water supply outlets shall be labeled in accordance with applicable laws and regulations.

D. Electricity

1. **Electrical Power:** The CONTRACTOR shall provide the power required for its operations. The CONTRACTOR shall provide and maintain, in good order, power equipment and installations to perform the work required.
 - a. **Construction Lighting:** When work is permitted to be conducted at night or under conditions of deficient light, the work area shall be suitably lighted to afford adequate illumination for performance and inspection of the work. Lighting for construction activities shall be directed away from residential areas, public highways, and roads.
2. **Construction Electrical Wiring and Equipment:** Construction electrical wiring and equipment shall be in accordance with CCR Title 8 and NEC.

E. Telephone

1. The CONTRACTOR shall provide and maintain the telephone equipment and service required for its operations. At all times during the progress of the work, not less than one telephone shall be maintained in good order at each work site.
2. Calls originated by AGENCY employees that involve toll or message unit charges shall be billed to AGENCY by the CONTRACTOR on an invoice substantiated by a copy of the telephone company billing.

F. Sanitation

1. The CONTRACTOR shall provide and maintain sanitary conveniences for the use of all persons employed on the work. They shall be in sufficient number and at such places as ordered or approved by the Engineer and shall be in accordance with CCR Title 8.
 - a. Fixed or portable chemical toilets shall be provided wherever needed for the use of employees.
 - b. Washing facilities shall be provided wherever needed for the use of employees.
2. Sanitary fixtures, receptacles, toilet rooms, washrooms, and lavatories shall be kept clean and shall be frequently disinfected. The cleaning and disinfection of sanitary conveniences shall not be less than twice a week.

G. Other Utilities

- 1 The CONTRACTOR shall provide and maintain all other utilities required for its operations under the Contract.

H Removal of Temporary Utilities

1. Each temporary utility shall be removed, as soon as the need for it has ended.
2. The CONTRACTOR shall remove the CONTRACTOR'S field office promptly upon written direction from the Engineer. Utility services shall be disconnected and capped. The area shall be restored, clean and free of any evidence of scarred landscape or damage to the surrounding vegetation.

(END OF SECTION)

SECTION 001550

ACCESS, PARKING, AND TRAFFIC

Description of Contract:

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06

A. References

1. General

- a. The publications listed below form a part of this specification to the extent referenced.
- b. Where a date is given for reference standards, the edition of the date shall be used. Where no date is given for reference standards, the latest edition available on the date of the Notice Inviting Bids shall be used.

2. Caltrans Manual of Traffic Controls for Construction and Maintenance Work Zones.

B. Submittals

- 1 The CONTRACTOR shall submit a copy of the haul route permit, if applicable.

C. Access to the Work Site

1. The CONTRACTOR shall coordinate with the Engineer to determine appropriate routing of vehicles and personnel to and from the project.
2. In case of need to enter the site after normal working hours, access shall be arranged in advance with the Engineer.
3. The CONTRACTOR shall confine its activities and operations within the work area shown on the Drawings except as otherwise permitted by the Engineer.

D. Traffic Control

1. The CONTRACTOR shall be responsible for the safe movement of vehicular traffic to and from the worksite, including traffic control measures required to ensure safe passage of vehicles and equipment.
2. Traffic control shall be in accordance with CCR Title 8.
 - a. At least one (1) flagman shall be provided at each intersection during periods when the CONTRACTOR'S vehicular activity may conflict with other traffic along roads.
 - b. The flagman shall ensure that the right-of-way is granted to loaded vehicles and shall provide for safety of all users of the road.
3. Traffic control and signage shall be in accordance with Manual of Traffic Control for Construction and Maintenance Work Zones.

E. Haul Routes

1. If a permit is required by local authorities for off-site hauling of materials, the CONTRACTOR shall prepare the truck-routing plan, obtain the permit, and submit a copy of the permit to the Engineer before construction begins.
2. The plan shall include provisions for cleaning soil and rock from the truck route.
3. Consideration shall be given to weight restrictions on all roads.
4. The CONTRACTOR shall obtain approval of the local authority for construction signage along the haul route to notify the public of the potential for delay.
5. The CONTRACTOR shall inform the Engineer and local authorities when hauling operations are to begin and end.

F. Access Roads

1. Throughout the entire Contract period, the CONTRACTOR shall share access roads, both those constructed by the CONTRACTOR or otherwise provided for CONTRACTOR'S use, with AGENCY and other CONTRACTORS whose work is adjacent to the CONTRACTOR'S work.
 - a. Coordination with other CONTRACTORS shall be the responsibility of the CONTRACTOR. In case of conflicts or disputes, the Engineer's decision will be final.
 - b. The CONTRACTOR shall be responsible for the maintenance and upkeep of access roads constructed by the CONTRACTOR.
 - c. The CONTRACTOR shall provide dust control on canal and project site access roads used in CONTRACTOR operations and on those roads subject to dust because of conditions created by the work.
 - (1) Roads shall be sprayed by water truck at least daily or more frequently during actual haul operations.
 - d. If any paved access roads become damaged during the work, the CONTRACTOR shall promptly repair them with equivalent surfacing.

G. Parking

1. On-site parking areas for CONTRACTOR personnel shall be limited to the areas approved by the AGENCY.
 - a. Parking areas required in excess of those areas shown shall be developed by the CONTRACTOR, off-site, at the CONTRACTOR'S expense.
 - b. The CONTRACTOR shall provide transportation for personnel from parking areas to the work areas.
 - c. The CONTRACTOR'S personnel, suppliers, and delivery vehicles shall not park anywhere other than the well site easement areas.
 - d. At the CONTRACTOR'S option, the CONTRACTOR'S personnel may park in the

area designated for CONTRACTOR storage.

2. The CONTRACTOR'S personnel shall not park personal vehicles on canal roads or agricultural crops.
 - a. CONTRACTOR vehicles carrying tools or supplies to the work will be allowed on the canal roads; however, access shall not be obstructed to any areas of the canal. The CONTRACTOR shall move its vehicles or equipment and modify its operations to provide access for canal operations, deliveries, and maintenance.
 - b. CONTRACTOR'S personal vehicles carrying tools or specific portions of the work will be allowed to travel and park on canal roads provided they are clearly identified as CONTRACTOR'S vehicles with the CONTRACTOR'S name, Subcontractor's name, and the vehicle AGENCY'S name.
 - (1) A printed placard providing this information shall be displayed on the dashboard of each vehicle.
 - (2) At the request of the Engineer, the AGENCY of the vehicle shall sign a waiver of damage responsibility.
 - (3) The Engineer may rescind or modify this privilege at his discretion.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

(END OF SECTION)

SECTION 001570**TRAFFIC REGULATION**

Description of Contract:

**KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06****A. Description**

This section describes procedures for traffic regulation during construction in public streets and highways, if applicable as determined by the AGENCY.

B. Standard Specifications

Wherever reference is made to the State Specifications and Plans, such reference shall mean the State of California, Business and Transportation AGENCY, Department of Transportation Standard Specifications and Plans, 1992 edition for English units.

C. Submittals

The CONTRACTOR shall provide a complete plan for traffic control during the project to the AGENCY prior to the execution of work, if applicable.

D. Measurement and Payment

Payment for conforming to all of the traffic control requirements of these Specifications shall be considered to be included in the contract unit or lump-sum price paid for the various items of work wherein maintenance of traffic and detours is required and no additional allowance will be made therefor.

E. General

1. Provide safe and continuous passage for pedestrian and vehicular traffic at all times.
2. Control traffic at those locations indicated and in conformance with the approved traffic control plans and specifications.
3. Furnish, construct, maintain, and remove detours, road closures, traffic signal equipment, lights, signs, barricades, fences, K-rail, flares, solar-powered flashing arrow signs, miscellaneous traffic devices, flagmen, drainage facilities, paving, and such other items and services as are necessary to adequately safeguard the public from hazard and inconvenience. All such work shall comply with the ordinances, directives, and regulations of authorities with jurisdiction over the public roads in which the construction takes place and over which detoured traffic is routed by the CONTRACTOR. After devices have been installed, the CONTRACTOR shall, at his own expense, maintain and keep them in good repair and working order until no longer required. The CONTRACTOR shall also pay the cost of replacing such devices that are lost or damaged, to such an extent as to require replacement, regardless of the cause of such loss or damage.
4. Prior to the start of construction operations, notify the police, and fire department in whose jurisdiction the project lies, giving the expected starting date, completion date, and the names and telephone numbers of two responsible persons who may be contacted at any hour in the event of a condition requiring immediate emergency service to remove, install, relocate, and maintain warning devices. In the event these persons do not promptly respond or the authority deems it necessary to call out other forces to accomplish emergency service, the

CONTRACTOR will be held responsible for the cost of such emergency service.

5. Provide a minimum of 48 hours' notice to the city for any work which may affect signal loops, equipment, or devices. In the event that any underground utilities, traffic devices, pipes, or conduits are damaged and require emergency repair by the respective utility owner, all costs incurred by the utility owner in making such repairs, plus 5% percent for administration costs, shall be paid by the CONTRACTOR.
6. Post the construction information signs specified in Paragraph 1.06.B at least three (3) weeks prior to construction.

F. Traffic Control Devices and Signs

1. Traffic control devices and temporary striping shall conform to the State Standard Plans and Specifications. Construction signs shall conform to the latest edition of the State of California Sign Specification Sheets.
2. The placement of construction signing, striping, barricades, and other traffic control devices used for handling traffic and public convenience shall conform to the latest edition of the State of California, Department of Transportation, "Manual of Traffic Controls for Construction and Maintenance Work Zones".
3. Signs shall be illuminated or reflectorized when they are used during hours of darkness. Cones and portable delineators used for night lane closures shall have reflective sleeves. Barricades used in the diversion of traffic shall be equipped with flashers if in place during hours of darkness.
4. During the duration of a detour, cover all existing signs not in accordance with the traffic control plan. Existing signs which are in force shall be relocated to provide visibility from all relocated traffic lanes.

(END OF SECTION)

SECTION 001610

DELIVERY, STORAGE, AND HANDLING

Description of Contract:

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06

PART 1 GENERAL

A. Submittals

1. **Product Data:** Two copies of the manufacturer's printed recommendations for storage, handling, and protection of materials articles and equipment to be incorporated in the work shall be submitted a minimum of 30 days prior to the receipt of the material, article, or equipment at the site.
2. **Test Reports and Certifications:** Items requiring certification or mill test reports shall not be delivered or unloaded until 3 copies of the certification or mill test report have been delivered to the Engineer's field office.

B. General

1. **Materials, articles, and equipment** shall be delivered, stored, and handled in accordance with these Specifications and the printed recommendations of the manufacturer; using means and methods that will prevent damage, deteriorations, and loss, including theft.

C. Delivery

1. **Delivery** shall be scheduled to minimize long-term storage at the site and to prevent overcrowding of construction spaces. Special emphasis shall be placed on ensuring minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, or other losses.
2. **Items** shall be delivered to the site in the manufacturer's original sealed container or packaging system, complete with legible and intact labels and instructions for handling, protecting, storing, and unpacking. The label shall include the manufacturer's name, product name, manufacturing batch number (if appropriate), expiration date, ANSI hazard classification and ANSI handling precautions, if applicable.

D. STORAGE

1. **Item** subject to damage by the elements shall be stored in a warehouse or within a weatherproof enclosure or wrap that has adequate ventilation to prevent condensation. Flammable materials shall be stored in a separate area. Temperature and humidity shall be maintained within the range required by the manufacturer's printed recommendations.
2. **Materials and equipment** that are to be included in the CONTRACTOR'S estimate for partial payment shall be stored in a manner that will facilitate inspection and inventory. Items requiring periodic maintenance or inspection shall be stored in a manner that will facilitate these operations.
3. **If the Engineer determines** that satisfactory storage of an item is not being provided by the CONTRACTOR, the Engineer may direct the CONTRACTOR to provide additional protection. If the CONTRACTOR fails to provide the additional protection, protection may be provided by AGENCY. The cost for providing the protection may be charged to the CONTRACTOR

or deducted from payment due the CONTRACTOR.

4. Installed items shall have protection provided equivalent to that specified above, with additional regard for possible damage or loss due to continuing construction operations.

E. Handling

1. CONTRACTOR shall supply appropriate equipment and personnel to handle materials, articles and equipment in a safe manner and in a manner that will not cause damage to the product, to the environment, to work in progress, or to work in place.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

(END OF SECTION)

SECTION 001740

CLEANING DURING CONSTRUCTION & FINAL CLEANING

Description of Contract

KERN COUNTY WATER AGENCY
MONITORING WELLS PROJECT
CONTRACT NO. KCWA 26006-06

A. General

1. This section includes cleaning during construction and final cleaning on completion of the work.
2. At all times maintain areas covered by the Contract and adjacent properties and public access roads free from accumulations of waste, debris, and rubbish caused by construction operations.
3. Conduct cleaning and disposal operations to comply with local ordinances and antipollution laws. Do not burn or bury rubbish or waste materials on project site. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains. Do not dispose of wastes into streams or waterways.
4. Use only cleaning materials recommended by manufacturer of surface to be cleaned.

B. Cleaning During Construction

1. During execution of work, clean site, adjacent properties, and public access roads and dispose of waste materials, debris, and rubbish to assure that buildings, grounds, and public properties are maintained free from accumulations of waste materials and rubbish.
2. Wet down dry materials and rubbish to lay dust and prevent blowing dust.
3. Provide containers for collection and disposal of waste materials, debris, and rubbish.
4. Cover or wet excavated material leaving and arriving at the site to prevent blowing dust. Clean the public access roads to the site of any material falling from the haul trucks.

C. Final Cleaning

1. At the completion of work and immediately prior to final inspection, clean the entire project site as follows.
2. Clean, sweep, and pick-up all work, equipment, and trash from the area.
3. Grade project site to be smooth, flat and uniform as approved by the Engineer.
4. Ensure that all holes, tubes, and casings are adequately capped and covered to prevent access to openings as approved by the Engineer.
5. Remove from the site all temporary - structures and all materials, equipment, and appurtenances not required as a part of, or appurtenant to, the completed work.

(END OF SECTION)

SECTION A
TECHNICAL SPECIFICATIONS

KERN COUNTY WATER AGENCY

MONITORING WELLS PROJECT
CONTRACT NO. KCWA 2006-06

OCTOBER 2007

**Kern County Water Agency
Kern County, California**

MONITORING WELL CONSTRUCTION DETAILS

General Description of Work

General Statement

Kern County Water Agency (KCWA) intends to install three monitoring wells to depths of 250, 500 and 700 feet below ground surface. The purpose of the monitoring wells is to assess the water quality and groundwater elevations.

For bidding purposes, the anticipated construction of the wells will be 230, 480 and 680 feet of well casing and 20 feet of well screen installed in the three different boreholes. However, these construction specifications may change based upon data obtained from drilling the test well boring and the geophysical log. The wells will be constructed with 6-inch diameter SCH 80 PVC casing and 304 stainless steel continuously wire wound screen.

General Assumptions

The following are general assumptions to be used in preparation of the bidding response.

- Drilling location is accessible to drilling equipment.
- Water supply source is nearby.
- Contractor needs to dispose of drill cuttings and fluids.
- Development water can be disposed onto the ground surface within 500 feet of the drilling location.

Drilling Method

The monitoring wells shall be drilled using direct rotary methods.

Materials

General

1. All materials shall be new, in good condition and shall be supplied by the Contractor unless otherwise stated in the contract documents.

2. The Contractor shall inspect all materials for workmanship and/or manufacturing defects prior to installation and/or use; all defects shall be brought to the Kern County Water Agency's attention at the time of discovery.
3. The following table is intended to facilitate a more representative bid from the Contractor and shall not be used in lieu of reviewing the remainder of the materials section of this specification. The table includes estimated quantities of well and annular materials for the production well only.

Material	Type	Quantity
Well Screen	6" nominal diameter, continuous wound wire 304 stainless steel, 0.020-inch slot	20 feet per site 60 feet total
Well Casing	6" diameter, Schedule 80 PVC	1,390 feet total
Filter Pack	# 30 Monterey Sand or approved equivalent	Approx. 3.75 yd ³ total
Bentonite Seals	Baroid 3/8" Holeplug or approved equivalent	Approx. 60 ft total
Surface Seal	11-sack cement slurry	Approx. 55.6 yd ³ total

Cement, Grout and Concrete

1. All cement used on the work shall be standard brand Portland cement conforming to the "Specifications for Portland Cement" (ASTM Designation C150) Type II.
2. All neat cement grout, sand cement grout, or concrete shall conform to the specifications defined in Part II, Section 9.D of State of California, Department of Water Resources, Bulletin 74-90.
3. If the grout seal or concrete is to be furnished by a redi-mix supplier, the Contractor will submit copies of the mix design to the Kern County Water Agency 72 hours prior to placement.

Drilling Water

Potable water for construction will be provided by the Kern County Water Agency from the Cross Valley Canal, approximately 300 feet to the North. Contractor shall make all arrangements to transport the water and shall, at his own expense, provide facilities for obtaining and conveying water from the fore bay of CVC pumping Plant No. 6 source to the point of use. The contractor shall be responsible for obtaining an encroachment permit from the Kern County Water Agency and Cross Valley Canal Department, for this work.

Well Casing

The well casing shall be manufactured in accordance with the current ASTM Specifications D1785, including applicable parts with the following additions:

1. The diameter shall be a nominal 6 inches and of schedule 80 PVC. All casing used in the well shall be of uniform outside diameter and wall thickness.
2. Casing ends shall be flush-threaded with a rubber gasket to ensure a tight seal.
3. A "bullnose" cap shall be screwed on and/or reinforced with stainless steel screws. The bullnose shall be manufactured of the same material as the 304 stainless steel well screen to which it is attached.
4. Casing and well screen mill specifications from the manufacturer shall be submitted by the Contractor three days prior to installation.

Continuous wound wire screen

1. The continuous wound rod-based wire well screens shall have a nominal diameter of 6 inches. The continuous wound wire well screen shall be manufactured by US Filter/Johnson Screens, St. Paul, Minnesota or an approved equal.
2. The continuous wound wire well screen shall have the following specifications:
 - A. The well screen shall be manufactured from 304 stainless steel. The opening in the well screen shall be no more than 0.020-inches (0.51 mm).
 - B. The well screen shall have a minimum wire width of 0.264 inches and a minimum wire height of 0.306 inches.
 - C. The collapse strength shall be a minimum of 147 psi for 6-inch nominal diameter 304 stainless steel well screen.
 - D. Screen section ends shall be threaded to correspond with the threads on the PVC well casing.
3. The well screen specifications (e.g. opening between consecutive wires) may be modified by the Hydrogeologist based upon field conclusions

Filter Pack

Filter Pack – Shall be supplied by RMC Lonestar or equivalent. Material must be pre-approved by the Hydrogeologist. The anticipated gradation is # 30 Monterey sand and shall be composed of sound, durable, well-rounded particles, containing no silt, clay,

organic matter, or deleterious materials. The final filter pack gradation shall be determined after drilling the initial borehole. The Contractor shall provide a certification of gradation from the supplier of the filter pack material to be used.

1. The filter pack shall be delivered on the well site in super sacks and shall be numbered sequentially. Each numbered super sack shall be labeled with the weight of the material to the nearest pound. Each numbered super sack shall be labeled with the filter pack gradation.

Bentonite Seals

Chipped bentonite shall be supplied by Baroid (or approved equivalent) with a gradation size of 3/8-inch. Material shall be delivered onsite in bags of 50 to 100 pounds. The bentonite chips shall be covered to protect from rain and moisture. No previously hydrated bentonite shall be installed in the annular space of the borehole.

Drilling Fluid Program

The Contractor shall prepare and submit for pre-approval a Drilling Fluid Program (DFP). The DFP must be submitted two weeks prior to commencement of the drilling program.

The drilling fluid shall conform to the following specifications. The Contractor will maintain a log recording these parameters:

1. The drilling fluid has a weight (in pounds per gallon) of 8.8 to 9.4;
2. The drilling fluid has a funnel viscosity (in seconds) of 36 to 45. Drilling fluid viscosity may be allowed to vary as borehole conditions dictate;
3. The total solids content (by volume) of the drilling fluid shall be 6 to 8 percent;
4. The sand content of the drilling fluid shall be no more than 2 to 4 percent;
5. The A.P.I. water loss to the formation shall be no more than 10 to 12 percent;
6. The mud cake wall thickness shall be no more than 3/32 of an inch;
7. The annular velocity shall not be less than 50 feet per minute, AND shall be calculated and maintained based upon drill rig circulation rate, borehole diameter and drill pipe diameter;

8. The Contractor shall use only N.S.F approved drilling fluid products, and shall use them according to the manufacturer's recommendations;
9. The Contractor shall mix all products thoroughly, utilizing a mud hopper system or equivalent.
10. The Contractor shall provide sufficient aboveground drilling fluid storage and solids control equipment such that:
 - A. 30 minutes of surface retention time is provided for the recirculating drilling fluid, if desilters, desanders or shakers are not utilized; or
 - B. 15 minutes of surface retention time is provided for the recirculating drilling fluid, if desilters, desanders and or shakers are utilized.
11. The Contractor is cautioned to maintain the minimum viscosity of the drilling fluid that will raise the cuttings and adequately condition the walls of the borehole. Any mud cake that has formed on the walls must be removed during the development of the well.
12. The DFP shall utilize Hydrogeologist approved additives that are standard to the well drilling industry (e.g. bentonite, Quik-Gel, etc.).
13. The Hydrogeologist will not approve a DFP utilizing "water only".
14. Driller shall record properties of the drilling fluid at least three times during each drilling tour (weight and viscosity) in the driller's log or drilling fluid form.

Borehole Drilling and Formation Soil Sampling

The final borehole diameter will be 15 inches in diameter. Three separate boreholes will be drilled to a total depth of 260, 510, and 710 feet at three locations, respectively. Drilling fluid properties will be maintained as described in the section titled "Drilling Fluid Program".

Formation soil samples will be collected every 10 feet and at every change in lithology. Each sample will be containerized in two clear plastic bags (e.g., Ziploc Freezer Bags) and labeled with indelible ink indicating the well and depth interval of the sample. Each bag will contain a sample volume of approximately two pints. Care will be taken to collect a sample so that the fine portion of the formation sample is being collected. The sample

collection methodology to be used to obtain representative samples that include the finer particles is presented as follows:

The following methodology will be used from 70 feet below grade to the bottom of the test well borehole. At a depth of 70 feet, drilling will stop and the drilling fluid will be circulated without drilling until all cuttings have been removed from the borehole. The sample box is cleaned out at the same time. Next, the bit is allowed to penetrate the formation for 10 feet, at which point drilling ceases. All cuttings from this sample interval are then caught in the sample box as circulation is continued without further drilling. Rotation of the drill pipe should be continued without allowing it to feed downward to maintain uniform flow in the annular space around the drill pipe. Repeat this drilling and sampling methodology until total depth is reached.

Communication and Notification of County and Hydrogeologist Representatives

The Contractor shall maintain cellular telephone service at the work site at all times during construction activities.

The Contractor shall give notice to the Kern County Water Agency and the Hydrogeologist in writing or by telephone of specific operations as follows:

1. At least Seventy-two (72) hours advance notice of intent to start drilling, construction, development or other project related operations.
2. Twenty-four (24) hours advance notice of scheduling the geophysical and mechanical logs.
3. Immediate notification by telephone if operations are discontinued or when work is resumed after a stoppage.

Geophysical Logging

General

1. The Contractor shall perform all work and furnish all labor, materials, equipment and services required to conduct the geophysical logging of the test hole as specified herein. Results of said logs will be provided to the Hydrogeologist in digital ASCII format on a three and one-half (3-1/2) inch floppy disk, as well as five (5) hard copies (no photo copies allowed) in American Petroleum Institute (API) format, vertical scale of 1-inch equals 50 feet linear and logarithmic plots.

2. (a) All geophysical logs shall be the responsibility of one subcontractor (Welenco or an approved equivalent). The subcontractor must submit to the Hydrogeologist a current calibration of all tools for approval by Hydrogeologist and perform field calibration or repeat sections to insure accuracy of the survey; the repeat section shall be shown on the log. Logging shall be conducted at rates approved by the Hydrogeologist.

(b) The Hydrogeologist must be present during all geophysical logging.
3. All tools installed inside the borehole shall be disinfected with a fifty (50) ppm solution of sodium hypochlorite. One field copy of each log must be provided immediately to the Hydrogeologist for interpretation. The logging company shall provide assistance in interpretations. The cost of said services shall be borne by the Contractor.
4. The Contractor shall keep the borehole full of drilling fluid at all times in order to stabilize the borehole and provide for log integrity. The Contractor shall cooperate with the company or companies running such surveys and shall have at least two employees available to help in rigging the survey equipment.

Geophysical Logs

1. All logs shall be made along the full depth of the deep borehole (up to 700 feet) for each set of monitoring wells. As a minimum, the logs shall consist of:
 - A. Spontaneous Potential Log,
 - B. Short Normal and Long Normal Resistivity Log (16 and 64 inch spacing),
 - C. Single Point Resistivity Log, and
 - D. Spectral Gamma Log, utilizing a six (6) inch crystal. Preferred provider is Barbour Well Surveying Corporation of Camarillo, California or **pre-approved** equivalent.

Monitoring Well Construction

General Well Construction Specifications

For bidding purposes, assume the well will be constructed as follows:

Final Construction Specifications

Final construction specifications for each of the monitoring wells will be based upon review of the data collected from drilling the borehole, formation soil sample (lithologic) log, and geophysical logging. The final construction specification will include the location of the well screen and the slot size of the well screen. Anticipated slot size will be either

0.020-inch or 0.032-inch based on the readily availability of these slots sizes from well suppliers and the surrounding formation.

Installation of Well Casing and Well Screen

For bidding purposes, the well screen and well casing will consist of the following:

Casing Type	Depth from Ground Surface (ft)			Casing Material
	250 Well	500 Well	700 Well	
Blank	+2 to 230, 250 to 255*	+2 to 480, 500 to 505*	+2 to 680, 700 to 705*	6-inch SCH 80 PVC (flush- threaded)
Screen	230 to 250	480 to 500	680 to 700	6-inch 304 SS continuously wound wire, (flush-threaded)

* A 5-foot sump will be installed below well screen. Casing centralizers shall be installed every 80 feet

Installation of Filter Pack

1. Prior to installation of the filter pack, the return line from the shaker will be sealed off and the drilling fluid in the borehole shall be thinned with clean water to the satisfaction of the Hydrologist. The #30 Monterey Sand filter pack shall be installed in the annular space between the walls of the borehole and the well screen and casing. The filter pack shall be carefully installed to ensure complete filling of the annular space in the specific sections.
2. The tremie pipe must be installed below the total depth of the well casing at the start of the filter packing operations. The tremie pipe shall be withdrawn from the well at such a rate that the bottom of the tremie pipe is no more than ten (10) feet above the top of the filter pack.
3.
 - A. When the filter sand has been placed, a swab shall be worked opposite all perforated sections of casing while circulating with clean water; the Contractor shall pay particular attention during this operation to achieve the highest degree of compaction possible to prevent future settlement of the gravel pack. As the filter sand settles, more shall be added at rate allowing optimum compaction. This operation shall be continued until there is no further measurable settlement of the filter sand, and the filter sand has been washed clean.
 - B. During the installation of the filter envelope, the flow of filter sand shall be interrupted, the tremie pipe allowed to empty of sand, and the top

of the sand located by "sounding" with the tremie pipe or other device; this shall occur a sufficient number of times to insure that the filter pack is being placed and compacted correctly.

4. The volume of filter sand placed shall be not less than the calculated volume of the filter sand necessary to fill the annular space between the casing and the wall of the hole. The Contractor shall supply the devices required for measuring the filter sand.
5. Upon completion of this operation, and after removal of the swab, all rock, sand and foreign materials shall be removed from the casing by bailing.
6.
 - A. The Contractor will be responsible for keeping an accurate and detailed log during the entire filter pack placement operation. The log will include the number of sacks and/or pounds of sand placed per 10-foot interval, the elevation of the filter pack in the annulus at regular and routine intervals, and the elevation of the filter pack in the annulus above each well screen following settlement developing efforts, as a minimum.
 - B. The Contractor will be responsible for following and logging the filter pack placement according to the plan prepared by the Hydrogeologist. The Contractor will label each sack of filter pack to indicate the order in which the sacks were emptied into the annulus.
 - C. Two copies of all logs and other records shall be given to the Agency and the Hydrogeologist upon completion of the gravel pack operation.

Installation of Bentonite Seal

A bentonite seal, using bentonite chips, will be placed by tremmie at the intervals indicated in table below.

Cement seal

The cement seal shall be placed by tremie from the top of the upper bentonite seal to ground surface. The cement shall conform to the specifications defined in Part II, Section 9.D of the State of California Department of Water Resources Bulletin 74-90.

1. If necessary, conductor casing shall be installed before beginning the borehole. The borehole shall be no smaller than 15 inches in diameter.

A summary of the well construction methodology is presented below.

Material	Depths from Ground Surface (ft)		
	250 Well	500 Well	700 Well
Bentonite	217 to 227 250 to 260	467 to 477 500 to 510	667 to 677 700 to 710
Filter Pack	227 to 250	477 to 500	677 to 700
Cement Seal	0 to 217	0 to 467	0 to 667

Development of Well

After filter pack and annular seal placement has been completed, the filter pack shall be cleaned first by airlift pumping and then swabbing in stages opposite the entire perforated section(s), until the filter pack has been cleaned. The airlift pumping will be done with a swab assembly. The conductor pipe on the swab assembly shall be of a nominal diameter with a minimum one (1) inch diameter air pipe. The air compressor and necessary equipment used for pumping shall be capable of pumping 100 gpm during development. The air compressor shall be supplied with a minimum of two air filters designed to eliminate compressor oil entering the well. The swabbing and pumping operations will be conducted alternately over no more than the length of one joint of drill pipe until that section of screen is fully developed.

Swabbing shall take place beginning at the bottom of the well progressing upward until there is no circulation of sand, silt, or mud to the surface.

For bidding purposes, initial well development by swabbing and airlifting is estimated to be approximately 8 hours per well. The Contractor shall provide all pipeline and equipment for discharging pumped water from each well site to a contractor-furnished 400 bbl storage tank or two if required. The Contractor shall so design his system that no erosion or other damage results from the discharge. The Contractor will be responsible for property, damage, construction delays, or other problems caused by flooding due to inadequate discharge facilities. The contractor shall be responsible for testing of fluid as specified in section labeled "Water Quality Sampling". Results of testing shall be made available to the Agency and Hydrogeologist for analysis. After the results of testing are known and fluid is of such quality to allow, contractor shall skim fluid off top of Baker tank and convey to CVC fore bay.

If the results of the water quality tests indicate that the contained fluid cannot be discharged to the CVC Fore bay, they will be off-hauled and disposed of at an Agency approved disposal site. The change in assumed disposal status of the fluids shall be processed as a Change Order.

Final Well Development

The contractor shall furnish, install, operate, and remove a pump for developing the well. The pump shall have a minimum capacity of 100 gpm. The Contractor shall furnish and install discharge piping from the pumping unit of sufficient size and length to conduct water to the point of disposal together with acceptable orifices, meters or other approved devices, which will accurately measure the flow rate. The contractor shall install a Rossum sand tester not more than 3 feet down stream of discharge head in the discharge piping to measure sand production.

Pumping shall continue until the water clears and sand content has lowered. At this time, the pump shall be stopped, and water allowed to surge the well. The pump should be restarted and continue until the discharge clears. This process shall be repeated at the same pumping rate until surging produces low amounts of debris and fines at which time multiple surging shall be conducted.

Development records shall be maintained on at least a ½ hour interval showing pumping rate, drawdown, and sand production.

For bidding purposes, it is assumed pump development is estimated to be 8 hours per well. The Contractor shall be responsible for disposal of all development and test water. Water, including, mud, sand, and debris pumped from the well during developing and testing shall be disposed of by the Contractor as part of this contract in such a manner as not to damage or interfere with property of others. Disposal of water will be directed by the Hydrogeologist and Kern County Water Agency.

The Contractor must coordinate his discharge activities with any other construction work being done concurrently. All existing facilities disturbed or removed by the Contractor

shall be replaced to its original condition immediately upon completion of the specific work. Protective barriers, fencing and other safety protection as necessary to protect the public and workmen shall be provided by the Contractor. The Contractor shall obtain applicable permits from the County prior to any discharge to the drainage course or storm collection system. Sedimentation collection facilities (e.g., Baker Tanks to settle suspended solids) may be necessary.

Drill Cuttings and Fluid Disposal

Contractor shall be responsible for the disposal of all drill cuttings and fluid. Drill cuttings shall be spread out on-site. Spent drilling fluid shall be disposed of at Agency approved disposal site. For bidding purposes, assume the drilling fluid to be Class Two waste material. In the event that the drilling fluid require Class One disposal, additional cost will be handled with a change order as directed by Kern County Water Agency.

Water Quality Sampling

A water sample will be collected immediately prior to the conclusion of the final well development. Kleinfelder shall be responsible to obtain the professional services of a State Department of Health Services (DHS) certified laboratory to test the following constituents:

General Mineral
General Physical
Metals (————)

The samples will be collected by an Agency representative in containers supplied by the certified laboratory and appropriately labeled. The samples will be transported to the laboratory in cooled ice-chests under chain of custody protocol. The chemical analysis will be conducted on a standard 10-working day turnaround time.

Reporting

Copies of all field records, originals of the geophysical logs, lithologic logs, and laboratory analysis, and the well owner's copy of a completed Department of Water Resources

(DWR) Well Driller's Report shall be supplied to the Agency. The Contractor shall submit a Well Driller's Report to the DWR on behalf of the Agency

Preservation of Property

All existing improvements, including fences, sidewalks, landscaping, sprinkler system, structures, signs, poles, etc., located adjacent to the work area shall be protected from any damage and preserved in their previously existing conditions throughout the duration of the project. Should any improvements become damaged through the actions of the contractor, it shall be repaired to its pre-existing condition at no expense to its owner. The cost of reinstalling any existing improvements such as poles, billboards, fences, etc. required as a result of raising or lowering the existing ground elevations shall be borne by contractor and shall be included in the various other items of work. No additional payment will be made therefore.

Miscellaneous

The Contractor will be responsible for the following items.

Cleanup and Dust Control. Throughout all phases of construction, including suspension of work, and until final acceptance of the project, contractor shall keep the work site clean and free of rubbish and debris. Contractor shall also abate dust nuisance by cleaning, sweeping, and sprinkling with water, or by other means as necessary; dust control shall also conform to the provisions of Section 10 of the *Caltrans Standard Specifications* and the *Standard Specifications for Dust Control*. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other methods.

Sanitation. Contractor shall provide and maintain enclosed toilets for the use of employees engaged in the work. These facilities shall be maintained in a neat, sanitary condition. They shall also comply with all applicable laws, ordinances, and regulations regarding the public health and sanitation of dwellings and camps. Materials and equipment shall be removed from the site as soon as they are no longer necessary. Upon completion of the work and before final inspection, the entire work site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory, clean, and neat appearance. All cleanup costs shall be absorbed in contractor's bid.

Fences, barricades, warning signs, and lights. To conform to CAL-OSHA regulations, other State of California and local codes, rules, regulations, and ordinances for protection of workers, public and private property, and provide, install and maintain barricades, warning devices and other protection required

therefore. Contractor to provide temporary fencing, etc., as required to protect materials, equipment and miscellaneous items from theft, vandalism and unauthorized access.

Well Completion

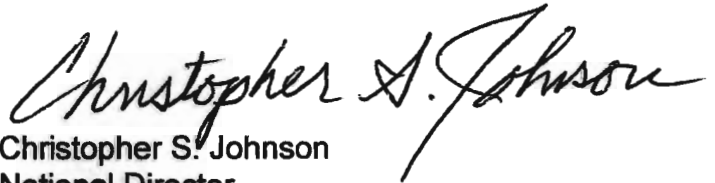
Following the completion of the development, pumping test and water sampling, surface completion will consist of a portable standpipe monument box, steel post bollards and a concrete apron as detailed on the Contract Drawings.

Respectfully Submitted,

Kleinfelder



Richard W. Short
Project Manager
Groundwater Service Program



Christopher S. Johnson
National Director
Groundwater Service Program

SECTION B

DRAWINGS

KERN COUNTY WATER AGENCY

**MONITORING WELLS PROJECT
CONTRACT NO. 2006-06**

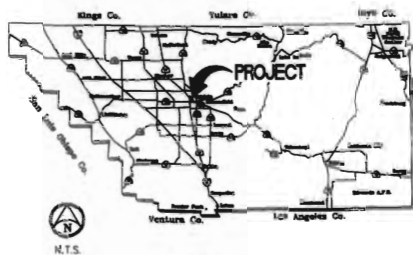
OCTOBER 2007

MONITORING WELLS

PROJECT NO. KCWA-2006-06

CAUTION:
CONTRACTOR SHALL CALL U.S.A. FOR
LOCATION OF UNDERGROUND UTILITIES
PRIOR TO EXCAVATION.
CALL 1-800-642-2444 48 HRS.

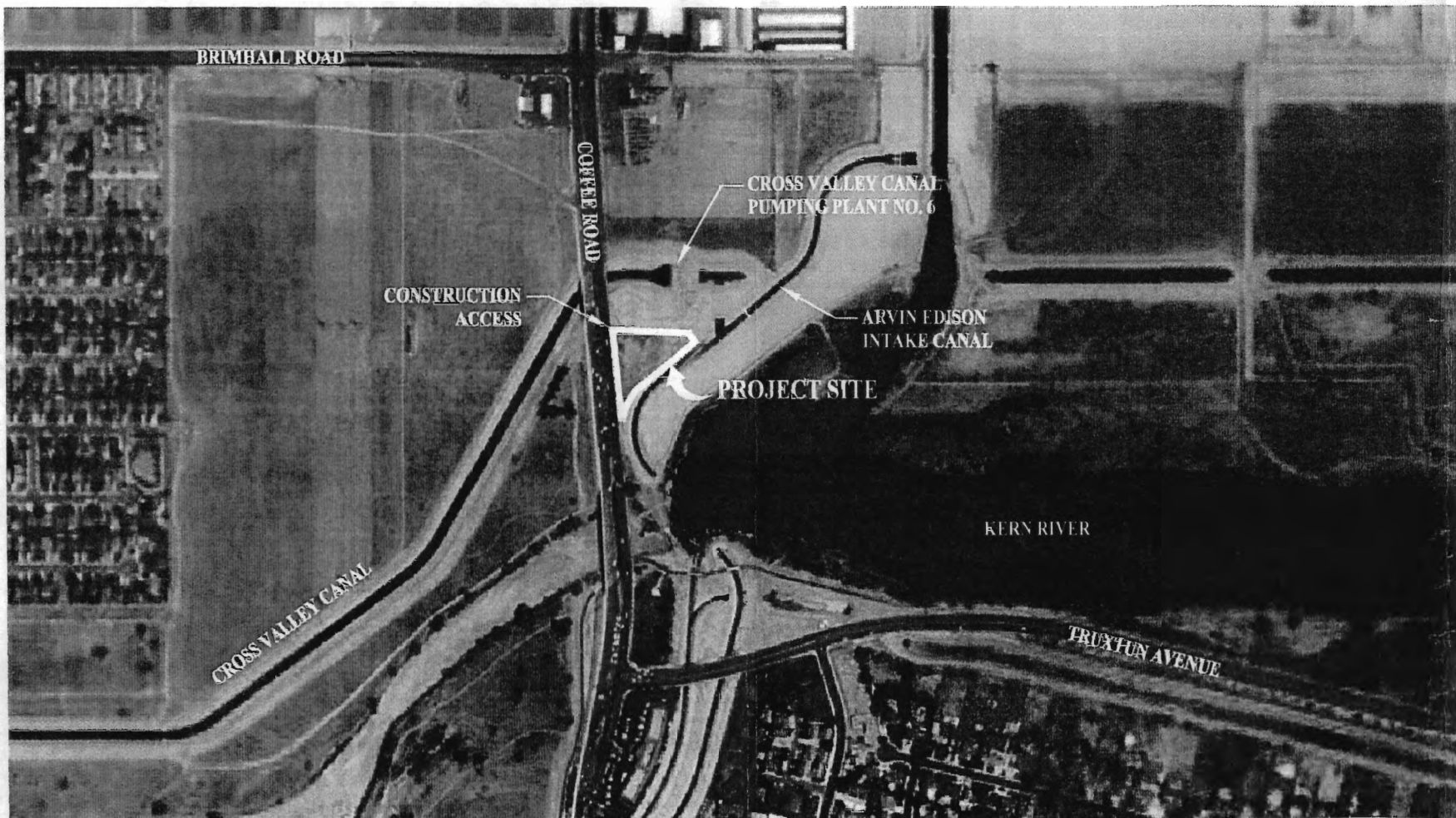
NOTE:
THE ENGINEER HAS MADE A DILIGENT SEARCH OF RECORDS, CONTRACTED UTILITY
COMPANIES AND OTHERWISE ENGAGED TO INDICATE ON THE DRAWINGS ALL
UTILITIES WHICH EXIST WITHIN THE LIMITS OF THE WORK OF THIS PROJECT.
HOWEVER, THE ENGINEER DOES NOT ASSUME RESPONSIBILITY FOR ERRORS OR
OMISSIONS. THE CONTRACTOR SHALL CONTACT THE OWNERS OF THE UNDERGROUND
FACILITIES AND REQUEST THEY LOCATE AND MARK ON THE GROUND THEIR FACILITIES
PRIOR TO BEGINNING WORK. PRIOR TO DELIVERY OF ANY MATERIALS OR BEGINNING
EXCAVATION FOR ANY CONSTRUCTION INCLUDING BUT NOT LIMITED TO SEWER LINES,
WATER LINES, STORM DRAIN, STREETS, ETC. AND PRIOR TO BRINGING ANY
ADDITIONAL MEN OR EQUIPMENT ON THE JOB, THE CONTRACTOR SHALL EXPOSE AND
CONFIRM THE EXACT LOCATION AND ANY POSSIBLE CONFLICT WITH THE WORK TO BE
PERFORMED. THE ENGINEER SHALL THEN DETERMINE IF ANY REVISIONS TO THE
DESIGN ARE REQUIRED AND PREPARE ANY NECESSARY REVISIONS TO THE PLANS
PRIOR TO THE CONTRACTOR PROCEEDING WITH ANY WORK ON OR AROUND THE
AFFECTED LINE OR LINES. NO EXTRA COMPENSATION WILL BE ALLOWED FOR EXTRA
COSTS INCURRED DUE TO THE CONTRACTOR'S FAILURE TO STRICTLY FOLLOW THIS
PROCEDURE. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES,
THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE
CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT,
INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THIS REQUIREMENT APPLIES
CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS. CONTRACTOR
SHALL DEFEND, INDEMNIFY AND HOLD THE DESIGN PROFESSIONAL(S) HARMLESS
FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE
PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE
SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL(S).



COUNTY OF KERN



STATE OF CALIFORNIA



VICINITY MAP
NOT TO SCALE

SHEET INDEX

- 1 COVER SHEET
- 2 SITE PLAN
- 3 DETAILS
- 3 TOTAL SHEETS

BASIS OF BEARING:

THE BEARING OF SOUTH 09°40'24" WEST, SHOWN FOR THE
WEST LINE OF THE NORTHWEST QUARTER OF SECTION 33,
TOWNSHIP 29 SOUTH, RANGE 27 EAST, N.E.M. CITY OF
BAKERSFIELD, COUNTY OF KERN, STATE OF CALIFORNIA,
RECORDED IN THE KERN COUNTY SURVEYORS OFFICIAL
RECORDS IN 606, PG. 266, WAS USED AS THE BASIS OF
BEARING ON THIS MAP.

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL
NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO AIR
QUALITY CONTROL PERMITS.

DEE JASPAR & ASSOCIATES, INC.
CIVIL ENGINEERS
884 WEST MORTON AVENUE
PORTERVILLE, CALIFORNIA 93257
PHONE 559 781-8300
FAX 559 781-8300
PHONE 805 383-5396
FAX 805 383-4796

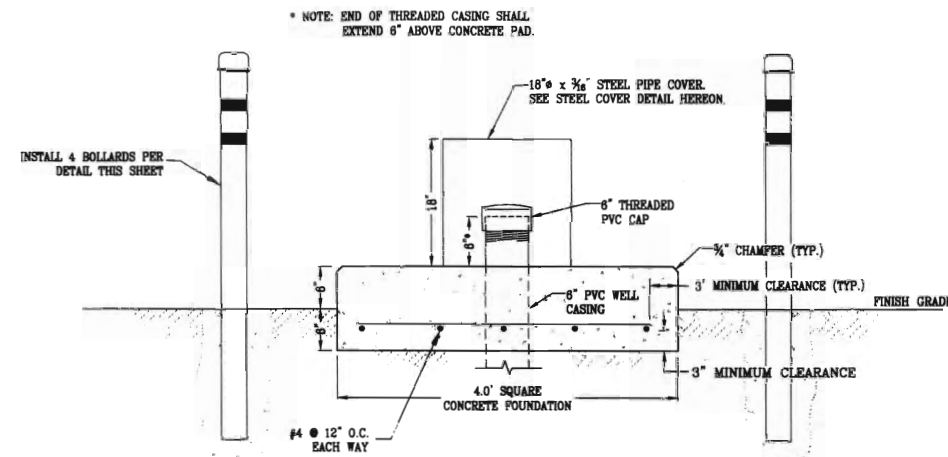
DESIGNED BY: RCE 09413
JEFFREY J. PRAY (6-30-06)

APPROVED BY: RCE 00960
CURTIS M. SKAGGS (12-31-06)

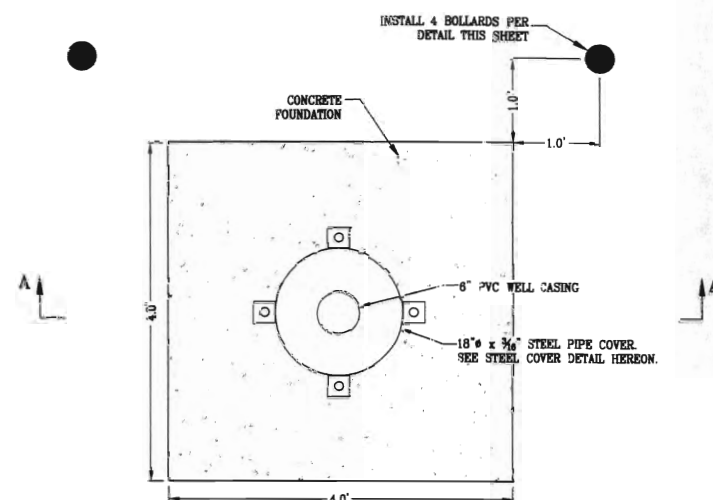
MARTIN M. VARGA RCE 54892
ENGINEERING AND GROUNDWATER MANAGER (12-31-07)
KERN COUNTY WATER AGENCY

KERN COUNTY WATER AGENCY
KERN COUNTY, CALIFORNIA

SEPTEMBER 28, 2007

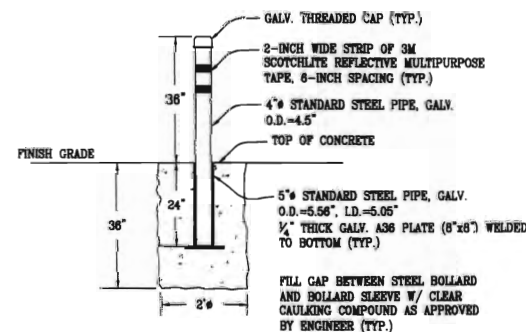


SECTION A-A

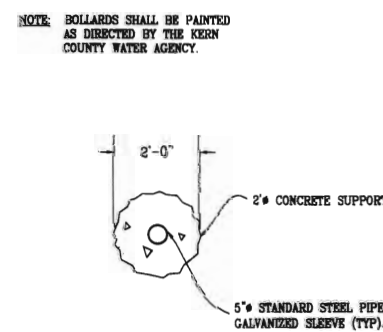


PLAN VIEW

SURFACE COMPLETION DETAIL
NOT TO SCALE

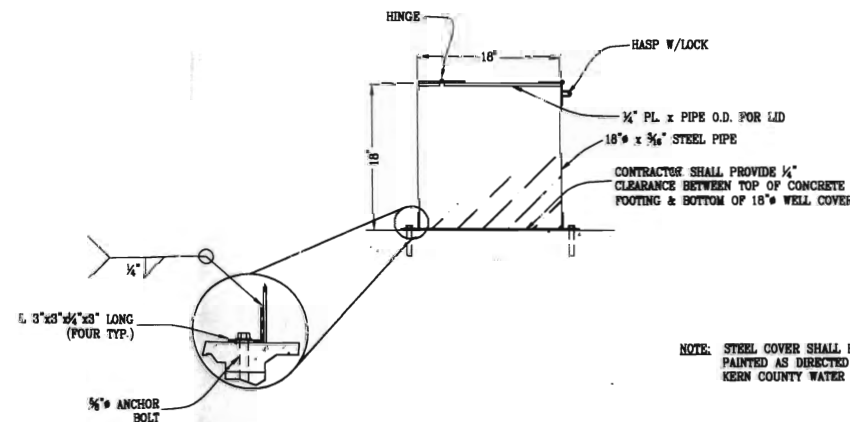


ELEVATION VIEW



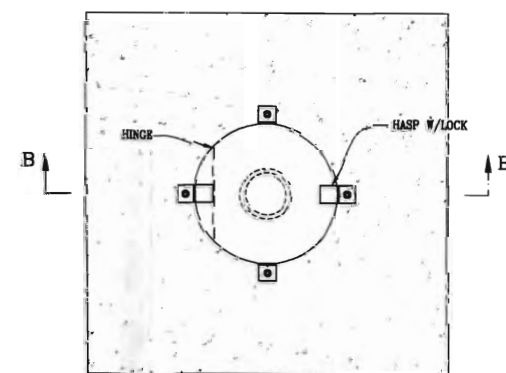
PLAN VIEW

TYPICAL BOLLARD DETAIL
NOT TO SCALE



SECTION B-B

STEEL COVER DETAIL
NOT TO SCALE



PLAN VIEW

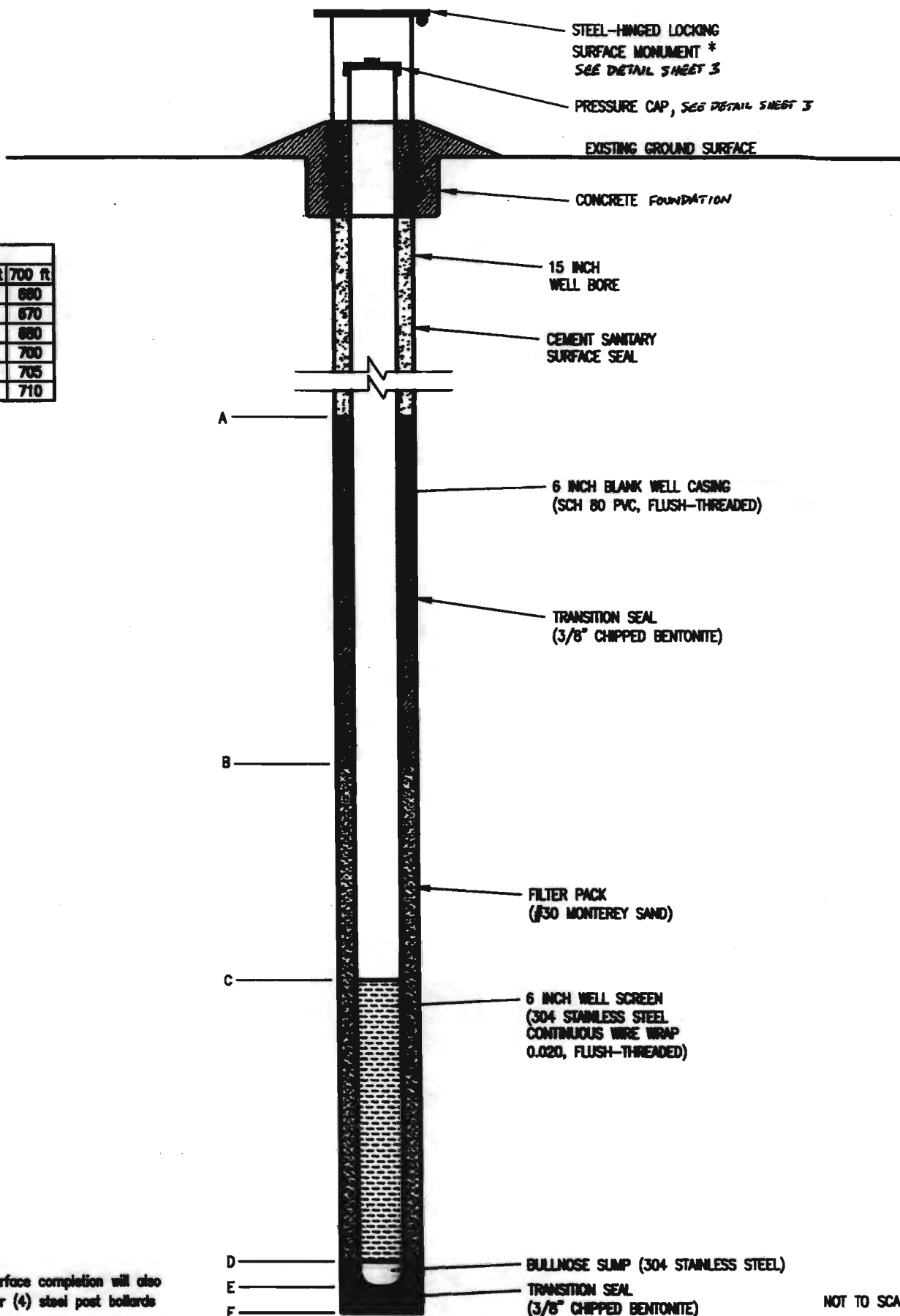
DETAILS
ID4 MONITORING WELLS
KERN COUNTY WATER AGENCY
KERN COUNTY, CALIFORNIA

REVISION	BY

DEE JASPAR & ASSOCIATES, INC.
CIVIL ENGINEERS
101 WEST LANTANA AVENUE, SUITE 200
PORTLAND, OREGON 97207
PHONE 503 281-1111
FAX 503 281-1111
SALESMAN: CALIFORNIA 800-833-1111

DRAWN	JJP
CHECKED	CHS
DATE	2/9/07
SCALE	1"=30'
FILE	
JOB NO.	
SHEET	3
OF	3 SHEETS

DEPTH	WELL		
	250 ft	500 ft	700 ft
A	210	460	660
B	220	470	670
C	230	480	680
D	250	500	700
E	255	505	705
F	260	510	710



* - Well surface completion will also consist of four (4) steel post bollards

NOT TO SCALE

KLEINFELDER

2625 EAST MIDDLE STREET STOCKTON, CA 95210-6704
© Kleinfelder, Inc. 2008

WELL SCHEMATIC
KERN COUNTY WATER AGENCY
BAKERSFIELD, CALIFORNIA

PLATE

1

DATE PRODUCED: 10/17/07

DATE REVIEWED:

PROJ. No.: 72680.200

FILE NAME: WELL.CAD